

**MAJOR PROJECT ASSESSMENT:  
98 Lot Residential Subdivision,  
Banyula Drive Old Bar  
Project Application (MP 05\_0106)**



Director-General's  
Environmental Assessment Report  
Section 75I of the  
*Environmental Planning and Assessment Act 1979*

April 2009

© Crown copyright 2009  
March 2009  
NSW Department of Planning  
[www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

Disclaimer:

While every reasonable effort has been made to ensure that this document is correct at the time of publication, the State of New South Wales, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document

## EXECUTIVE SUMMARY

---

This is a report on a project application by Hill Top Planners to carry out a 98 Lot Subdivision at Banyula Drive Old Bar (Lot 7 DP 1069956) ("the proposal").

The subject site is identified as Precinct 2A in the 'Old Bar Wallabi Point Development Strategy, 2001' prepared by Greater Taree City Council. This Strategy identified the subject site as being suitable for residential development.

The site was originally part of a larger site, known as Precinct 2 (described as Lot 111 DP 815853), which was subsequently divided into what is now known as Precinct 2A and Precinct 2B. This division was made as the land known as Precinct 2B, consisting of land immediately to the west of Precinct 2A, required the construction of a major sewer pump station to service the development as only Precinct 2A was capable of draining to an existing sewer system. The site contains a wetland listed under *State Environmental Planning Policy 14 – Coastal Wetlands*.

Precinct 2A, following a Local Environmental Study, was rezoned to part 2(a) Residential, part 6 (a) Open Space Recreation and part 7(a) Environmental Protection Habitat under *Greater Taree Local Environmental Plan 1995* ("LEP 1995") on 18 March 2005 (Amendment No 54, GG 183.2005). The land within the SEPP 14 wetland is zoned 7(a) (14Ha) and the 6(a) portion (5Ha) adjoins this area. The balance of the site is zoned 2(a) comprising approximately 13.5Ha and has the potential to be subdivided into 140 allotments. The current Project Application proposes 98 of these allotments based on sewer servicing capacity.

This project application proposes the following:-

- Subdivision of the site into 98 residential allotments and a residual allotment in 8 stages;
- Construction of internal roads comprising Roads 1 to 8;
- Infrastructure provision comprising water and sewer reticulation, electricity and telecommunications;
- Stormwater drainage infrastructure;
- Landscaping and provision of public pathways/cycle ways;
- Asset protection zone for bushfire protection; and
- Restoration of degraded wetlands.

The estimated project cost of the development is \$9 million. The proposal will create 5 full time equivalent construction jobs and no full time equivalent operational jobs.

During the exhibition period, the Department received a total of 7 submissions from public authorities and 14 submissions from the public. Key issues considered in the Department's assessment included:

- Water Cycle Management
- Infrastructure Provision
- Impact on Wetland
- Management of Open Space and Connectivity
- Traffic and Access
- Flora and Fauna
- Aboriginal Cultural Heritage
- Subdivision Layout and Visual Amenity

The Department has assessed the merits of the project and is satisfied that the impacts of the proposed development have been addressed via the Proponent's Statement of Commitments and the Department's recommended conditions of approval, and can be suitably mitigated and/or managed to ensure a satisfactory level of environmental performance. On these grounds, the Department is satisfied that the site is suitable for the proposed development and that the project will provide environmental, social and economic benefits to the region. All statutory requirements have been met. The Department recommends that the project be approved, subject to conditions.

## CONTENTS

---

<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>1 BACKGROUND.....</b>	<b>5</b>
1.1 The Subject Site .....	5
1.2 The Surrounding Locality.....	6
1.3 The Site History - Rezoning and Strategic Context .....	7
<b>2 THE PROPOSED DEVELOPMENT .....</b>	<b>9</b>
2.1 Project Description .....	9
<b>3 STATUTORY CONTEXT .....</b>	<b>10</b>
3.1 Major Project Declaration .....	10
3.2 Permissibility.....	10
3.3 Exhibition and Notification Details .....	10
3.4 Director-General's Environmental Assessment Requirements.....	11
3.5 Minister's Power To Approve .....	11
3.6 Objects of the Environmental Planning And Assessment Act 1979.....	12
3.7 Environmental Planning Instruments (EPIs) .....	13
<b>4 CONSULTATION AND ISSUES RAISED .....</b>	<b>14</b>
4.1 Submissions Received .....	14
4.2 Public Authority Submissions .....	14
4.3 Public Submissions .....	15
<b>5 ASSESSMENT OF ENVIRONMENTAL IMPACTS.....</b>	<b>17</b>
5.1 Water Cycle Management .....	17
5.2 Infrastructure Provision.....	21
5.3 Impact on Wetland.....	23
5.4 Management of Open Space and Connectivity .....	29
5.5 Traffic and Access .....	30
5.6 Flora and Fauna .....	33
5.7 Aboriginal Cultural Heritage.....	35
5.8 Subdivision Layout and Visual Amenity.....	36
5.9 Sustainability and Public Interest.....	37
5.10 Section 94 Contributions .....	38
5.11 Other issues.....	40
<b>6 CONCLUSION.....</b>	<b>42</b>
<b>7 RECOMMENDATION.....</b>	<b>43</b>
<b>APPENDIX A. INSTRUMENT OF APPROVAL.....</b>	<b>44</b>
<b>APPENDIX B. DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS.....</b>	<b>45</b>
<b>APPENDIX C. ENVIRONMENTAL PLANNING INSTRUMENTS .....</b>	<b>49</b>
<b>APPENDIX D. SUMMARY OF PUBLIC SUBMISSIONS .....</b>	<b>64</b>
<b>APPENDIX E. RESPONSE TO SUBMISSIONS .....</b>	<b>67</b>
<b>APPENDIX F. ENVIRONMENTAL ASSESSMENT .....</b>	<b>68</b>

# 1 BACKGROUND

---

## 1.1 The Subject Site

The site is located at Banyula Drive Old Bar and is legally described as Lot 7 DP 1069956 ("the site"). The site is within the local government area of Greater Taree on the mid-north coast and is owned by Riverside & Oyster Reach Estate Pty Ltd. The Project is proposed by Hill Top Planners ("the Proponent").

The site is located approximately 13 kilometres east of Taree, the main centre of the region, and approximately 1.3 kilometres from the ocean, which lies to the east and southeast of the site. Old Bar is a fishing village adjoining the Manning River estuary. The site context and location is illustrated in Figure 1.



The site comprises an area of approximately 31.62 hectares with the proposed development of the site forming a logical extension of the existing urban area of Old Bar.

The site is located within an important hydrological context with Banyula Creek occurring in the eastern portion of the site, while Oyster Creek exists to the west (on the boundary of the lands known as Precinct 2B). A wetland listed under State Environmental Planning Policy no 14 – Coastal Wetlands ("SEPP 14") occurs in the northern corner of the site.

The site is generally characterised as gently sloping from south to north towards Oyster Creek and sloping slightly more steeply to the east towards Banyula Creek. The highest point on the site is located at the southern boundary at 16m AHD, with the land gently sloping from this rise to the north (<1m AHD), east and west towards the wetland and creek confluence.

The northern portion of the site consists of low lying coastal wetland that forms part of the Manning River South Channel, being areas of wetland and salt marsh. There is only limited remnant vegetation located on the site, confined to these wetland and salt marsh areas in the northern portion of the site, which includes Swamp Sclerophyll Forest, Swamp Oak Forest, Salt marsh and Mangroves.

The remainder of the site is covered by scattered remnant Eucalypt trees with a highly modified under storey that is dominated by exotic grass species. Such vegetation structure has resulted from the previous use of the site for grazing and agriculture. The subject site is illustrated in Figure 2.

Existing development on the site is confined to a house and cattle yards which exist along the Banyula Drive boundary and which are proposed to be removed under the current proposal.

Figure 2: The Subject Site  
(Source: Google maps)



## 1.2 The Surrounding Locality

Adjoining development to the east consists of the existing low density residential development of Old Bar while to the south, beyond Banyula Drive, is existing residential development and rural lands (also part of precinct 2B outlined below). The site is bounded to the north by the confluence of Banyula and Oyster Creeks and coastal wetland No 571 listed under SEPP 14, while to the west is land known as Precinct 2B which is currently vacant cleared land awaiting rezoning (discussed below).

The township of Old Bar is accessed from the Pacific Highway (arterial road) by Old Bar Road (sub arterial road), which in turn conveys traffic into the local roads within the town including Medowie Road (collector road). The site is accessed via Medowie Road and Banyula Drive, with an existing (unnamed) road providing direct access to the site.

Old Bar is located to the east of the site and consists of residential development as well as some commercial, retail development and community and recreational facilities, including a supermarket, restaurants, take-away food stores and clubs. Saltwater National Park is located to the south of the site at Wallabi Point and the surrounding area is characterised by agricultural and grazing uses or lands adjoining the Manning River.

The subject site and adjoining lands is illustrated in Figure 3.

**Figure 3: The subject site and adjoining lands**  
(Source: Proponent's EA)



### 1.3 The Site History - Rezoning and Strategic Context

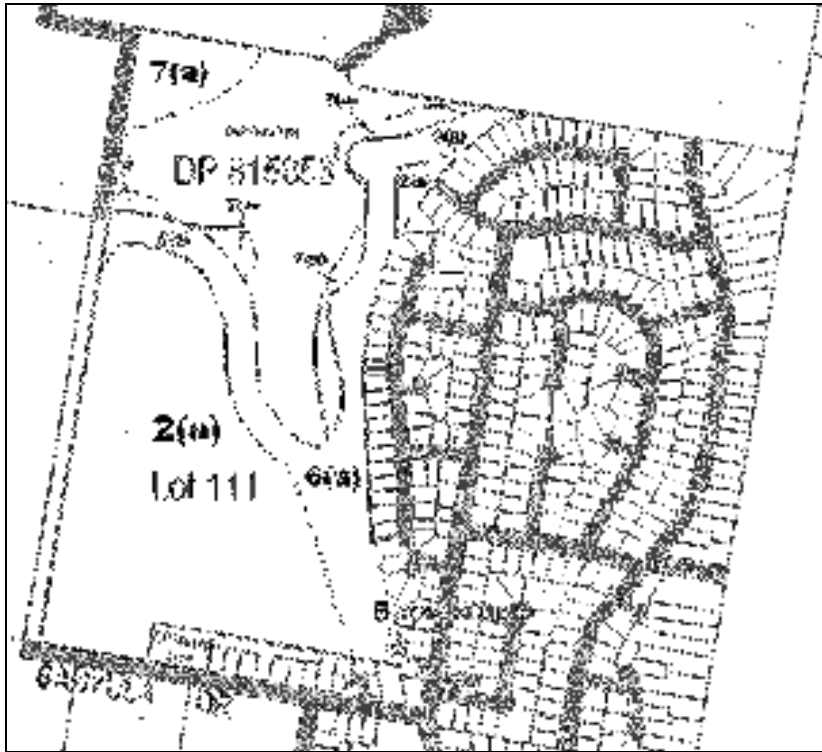
The subject site is identified as Precinct 2A in the 'Old Bar Wallabi Point Development Strategy' prepared by Greater Taree City Council ("the Council") in 2001, a Planning Strategy endorsed by the then Department of Urban Affairs and Planning. This Strategy identified the subject site as being suitable for residential development.

The site was originally part of a larger site, known as Precinct 2 (described as Lot 111 DP 815853), which was subsequently divided into what is now known as Precinct 2A and Precinct 2B. This division was made as Precinct 2B (west of Precinct 2A) required the construction of a major sewer pump station to service the development as only Precinct 2A was capable of draining to an existing sewer system. The estimated timing of construction of such works is not known and therefore has been excluded from this application. Other precincts in the vicinity of the subject site also included in the Strategy include Precinct 1 to the north and east of the site and Precinct 3 to the south beyond Old Bar Road. These Precincts are also not part of the current application.

The portion of Precinct 2B which immediately adjoins the subject site (Precinct 2A) consists of only approximately 6 hectares and was the subject of a draft LES at the time of the lodgement of the current project. This Precinct 2B land was originally part of the project, however, given the inappropriate zoning which did not permit the proposal (and the sewer servicing constraints), the adjoining land was removed from the current Major Project application.

Precinct 2A, following a Local Environmental Study, was rezoned to part 2(a) Residential, part 6 (a) Open Space Recreation and part 7(a) Environmental Protection Habitat under *Greater Taree Local Environmental Plan 1995* ("LEP 1995") on 18 March 2005 (Amendment No 54, GG) (see Figure 4). The land within the SEPP 14 wetland is zoned 7(a) (14Ha) and the 6(a) portion (5Ha) adjoins this area. The balance of the site is zoned 2(a) comprising approximately 13.5Ha and has the potential to be subdivided into 140 allotments. The current Project Application proposes 98 of these allotments based on sewer servicing capacity.

Figure 4: The zoning of the subject site  
(Source: Council's final map for rezoning Amendment No 54)



## 2 THE PROPOSED DEVELOPMENT

### 2.1 Project Description

This project application proposes subdivision of the subject site into 98 Torrens title residential allotments and associated services.

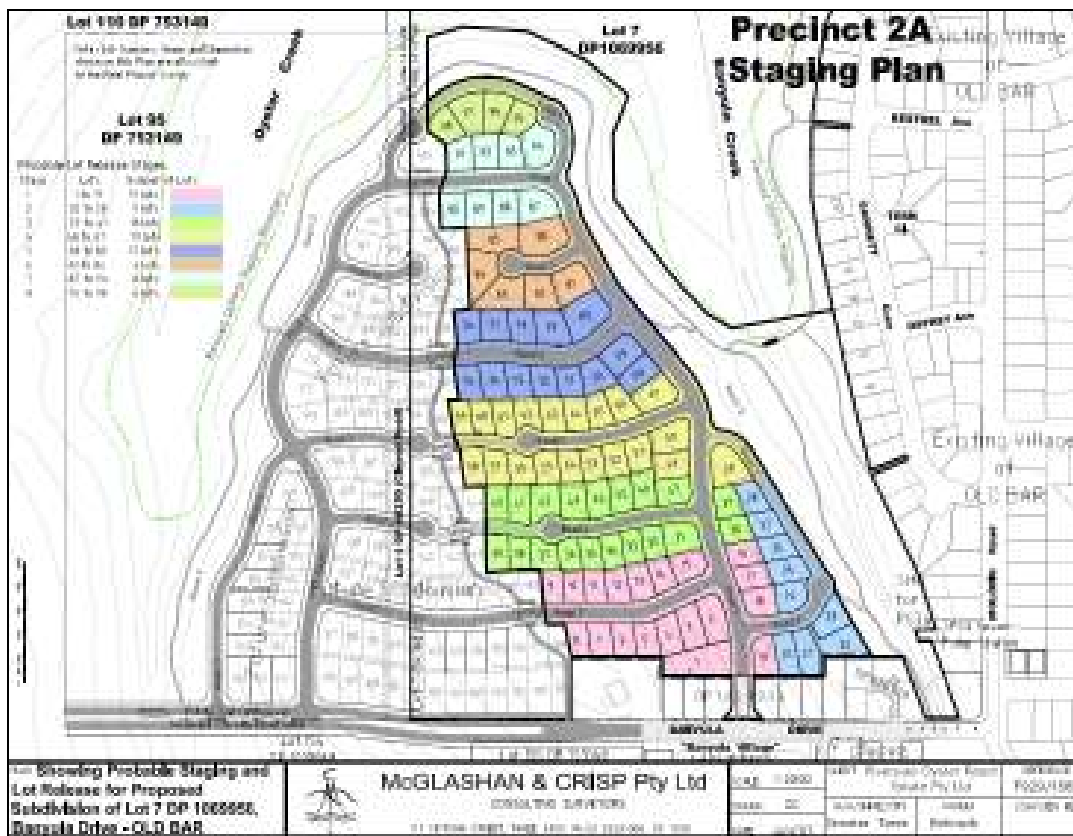
The key components of the project include the following:-

- Subdivision of the site into 98 residential allotments and a residual allotment in 8 stages;
- Construction of internal roads comprising Roads 1 to 8;
- Infrastructure provision comprising water and sewer reticulation, electricity and telecommunications;
- Stormwater drainage infrastructure;
- Landscaping and provision of public pathways/cycleways;
- Asset protection zone for bushfire protection; and
- Restoration of degraded wetlands.

The proposal is illustrated in Figure 5.

Figure 5: The Proposal

(Source: Environmental Assessment, prepared by Hill Top Planners dated December 2007)



## 3 STATUTORY CONTEXT

---

### 3.1 Major Project Declaration

The project is a Major Project under *State Environmental Planning Policy (Major Projects) 2005* being subdivision for residential purposes of land that is not in the metropolitan coastal zone (unless it is wholly or partly in a sensitive coastal location) into more than 25 lots (Schedule 2, clause 1(1)(j)(i)). The opinion was formed by the Director-General on 14 January 2008.

A Concept Plan was initially requested by the Proponent on 14 March 2006 as a large portion of the site was not appropriately zoned to permit the project (Precinct 2B). The Department initially recommended the Minister authorise the lodgement of a Concept Plan application for the following reasons:-

*The Concept Plan approach will permit the Department to assess the proposal for consistency with the proposed rezoning and with State and regional planning objectives and strategies and enabling, where appropriate, detailed issues within the approved concept framework to then be assessed at the local council level. An application for concept plan approval will also allow for potential phasing of the development and subdivision to take account of the proposed rezoning of part of the site.*

Given Precinct 2B no longer forms part of the project, it is now considered that a Concept Plan application is no longer required. The Minister authorised a Concept Plan to be lodged on 30 June 2006 and the Proponent has now formally requested that this Concept Plan authorisation be withdrawn.

It is considered appropriate that such Concept Plan authorisation be withdrawn following the removal of Precinct 2B from the project. A request to withdraw the Concept Plan authorisation has been included with the recommendation for determination of this project.

### 3.2 Permissibility

Under the *Greater Taree Local Environmental Plan 1995* ("LEP 1995"), the area of the site proposed for development is zoned 2(a) Residential, where residential subdivision is permissible pursuant to Clause 17. The Proposal is consistent with the objectives of the zone and therefore the Department is satisfied that the project is permissible with consent.

### 3.3 Exhibition and Notification Details

Under Section 75H(3) of the *Environmental Planning and Assessment Act 1979* ("the Act"), the Director-General is required to make the Environmental Assessment of a project publicly available for at least 30 days. After accepting the EA for the proposal, the Department provided the following:

- The project application and EA were placed on public exhibition from 18 February 2008 until 18 March 2008 and submissions were invited;
- Exhibition locations were at:
  - Department of Planning Head Office, 23-33 Bridge Street Sydney;
  - Department of Planning Regional Office (Hunter), Level 2, 26 Honeysuckle Drive Newcastle;
  - Greater Taree City Council Administration Building, 2 Pulteney Street Taree;
  - Greater Taree City Council – Old Bar Library, Shop 8, Cross Street & Old Bar Road, Old Bar; and
  - Nature Conservation Council, Level2, 301 Kent Street Sydney.
- Public Advertisement was given in the *Manning River Times* on 15 February 2008 notifying the community of the exhibition locations and the submission period;
- The EA was provided for download on the Department's website;

- Notification letters were sent to 184 adjoining and nearby property owners notifying of the Exhibition and inviting submissions; and
- The Project was referred to the relevant agencies for comments including Greater Taree City Council, Rural Fire Service, MidCoast Water, Department of Water and Energy, Department of Primary Industries, Hunter Regional Team, Department of Lands, and Department of Environment and Climate Change.

This satisfies the requirements of Section 75H (3) of the Act.

### 3.4 Director-General's Environmental Assessment Requirements

On 30 January 2008, the Director-General's Environmental Assessment Requirements ("DGRs") pursuant to Section 75F of the Act were issued. The key issues identified in the DGRs to be addressed included the following:

- Statutory and Other Requirements
- Subdivision Design, Layout and Desired Future Character
- Infrastructure Provision
- Traffic and Access
- Public Access and Community Services
- Hazard Management and Mitigation
- Water Cycle Management
- Heritage and Archaeology
- Flora and Fauna

The EA lodged by the proponent on 28 December 2007 was accepted as adequate under Section 75H of the Act on 12 February 2008, having addressed the key issues outlined in the DGRs. The DGRs are in **Appendix B**.

### 3.5 Minister's Power To Approve

The purpose of this submission is for the Director General to provide a report on the project to the Minister for the purposes of deciding whether or not to grant approval to the project pursuant to Section 75O of the Act. Section 75I(2) of the Act requires the Director-General's report to address a number of requirements which are set out in Table 1.

Table 1: Section 75I(2) of the Act Consideration

<b>Section 75I(2) criteria</b>	<b>Response</b>
Copy of the proponent's environmental assessment and any preferred project report	The Proponent's EA is at <b>Appendix F</b> . A Preferred Project Report was not required.
Any advice provided by public authorities on the project	All advice provided by public authorities on the project for the Minister's consideration is set out in Section 4 of this report and has been considered in this assessment.
Copy of any report of a panel constituted under Section 75G in respect of the project	No statutory independent hearing and assessment panel was undertaken in respect of this project.
Copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project	Each relevant SEPP that substantially governs the carrying out of the project are identified and assessed in this Section (see Appendix C).
Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division	An assessment of the development relative to all environmental planning instruments is provided in section 3 of this report.
Any environmental assessment undertaken by the	The environmental assessment of the project application

Director General or other matter the Director General considers appropriate.	is this report in its entirety.
A statement relating to compliance with the environmental assessment requirements under this division with respect to the project.	The DGRS are outlined in Section 3.3 and Appendix B of this report.
<b>Clause 8b Criteria</b>	<b>Response</b>
An assessment of the environmental impact of the project	An assessment of the environmental impact of the proposal is discussed in Section 5 of this report.
Any aspect of the public interest that the Director-General considered relevant to the project	The public interest is discussed in Section 5 of this report.
The suitability of the site for the project	The site is considered to be suitable for the proposed subdivision, given the recent rezoning for such a purpose.
Copies of submissions received by the director-General in connection with public consultation under Section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in the submissions is provided on Section 5 and Appendix D of this report.

### 3.6 Objects of the Environmental Planning And Assessment Act 1979

Decision made under the Act must have regard to the objects of the Act as set out in Section 5. The objects of most relevance to the Minister's decision on whether or not to approve the project are in Section 5(a)(i), (ii), (vi) and (vii), which state:-

(a) to encourage:

- (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
- (ii) the promotion and co-ordination of the orderly and economic use and development of land,
- (iii) the protection, provision and co-ordination of communication and utility services,
- (iv) the provision of land for public purposes,
- (v) the provision and co-ordination of community services and facilities, and
- (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
- (vii) ecologically sustainable development, and
- (viii) the provision and maintenance of affordable housing, and

The Act adopts the definition of Ecologically Sustainable Development ("ESD") found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD "requires the effective integration of economic and environmental considerations in decision-making processes" and that ESD "can be achieved through" the implementation of the principles and programs including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, public decisions should be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.

The Department has fully considered the objects of the Act, including the encouragement of ESD, in its assessment of the project application. The assessment integrates all significant economic and environmental considerations and seeks to avoid any potential serious or irreversible damage to the environment, based on an assessment of flora and fauna, stormwater management and infrastructure provision.

The project will form a logical extension to the existing urban area of Old Bar, being located adjoining existing residential development and therefore provides for the proper management and development of towns and villages and the orderly and economic use of land in relation to service provision and use of existing facilities

The project provides land for public purposes in the form of the 6(a) and 7(a) land and provides for the

protection of flora and fauna by limiting the development footprint to the disturbed areas of the site and the conservation of important ecological communities within the wetland areas. The proponent is committed to ESD principles and has reinforced this through the Statement of Commitments and the EA which explores key ESD opportunities, including conservation of vegetation, rehabilitation of the public open space areas and water sensitive urban design stormwater and wastewater management to ensure high environmental performance is delivered.

The Objects of the Act, including the encouragement of ESD, have been considered in the assessment of the project application and it is concluded that the proposal satisfies the objects of the Act.

### 3.7 Environmental Planning Instruments (EPIs)

Under Section 75I of the Act, the Director-General's report is required to include a copy of or reference to the provision of any State Environmental Planning Policy ("SEPP") that substantially governs the carrying out the project.

The Department has considered the proposal against the relevant provisions of the following SEPPs and EPI's:-

- State Environmental Planning Policy (Major Projects) 2005;
- State Environmental Planning Policy 71 – Coastal Protection;
- State Environmental Planning Policy 55 – Remediation of Contaminated Land;
- State Environmental Planning Policy 44 – Koala Habitat Protection;
- State Environmental Planning Policy 14 – Coastal Wetlands;
- State Environmental Planning Policy 11 – Traffic Generating Developments;
- Hunter Regional Environmental Plan 1989; and
- Greater Taree Local Environmental Plan 1995.

Other controls considered to apply to the project include:

- Mid-North Coast Regional Strategy 2009;
- NSW Coastal Policy 1997;
- Coastal Design Guidelines of NSW; and
- Greater Taree City Council Development Control Plan 41 – Subdivision.

These standards and provisions are relevant considerations for this application as the DGRs and Section 75I(2)(e) of the Act require the proponent to address such standards and provisions and for the Department to duly consider such standards and provisions. A consideration of these environmental planning instruments is outlined in **Appendix C**.

The proposal is generally consistent with these plans and policies.

## 4 CONSULTATION AND ISSUES RAISED

---

### 4.1 Submissions Received

During the exhibition period, the Department received a total of **21** submissions. These included 7 submissions from public authorities and 14 submissions from the Community. A summary of the issues raised in submissions is provided below.

### 4.2 Public Authority Submissions

The following submissions were received from public authorities:

**Greater Taree Shire Council** was generally supportive of the proposal with some concerns relating to stormwater given the site's proximity to sensitive aquatic environments in the form of the SEPP 14 wetland and salt marsh areas. The Council provided conditions of approval which have been reflected in the recommended conditions to be included in any approval given for the proposal. These issues, including stormwater and the internal road layout, are discussed in more detail in Section 5 of this report. These issues are satisfactorily addressed by the proposal and are reflected in the recommended conditions of approval.

**Department of Environment and Climate Change** ("DECC") reviewed the proposal and provided conditions of approval, however, raised the following concerns with the proposal:-

- Aboriginal Cultural Heritage – concerned with several aspects of the Aboriginal Cultural Heritage Assessment including the lack of adequate consultation with the local Aboriginal Community throughout the assessment process, the archaeological assessment being inconsistent with current guidelines and the insufficient justification for proposed mitigation recommendations; and
- Threatened Species and Biodiversity – concerned with the lack of mitigation measures for management of conservation lands on site, the absence of qualitative data on threatened species to allow assessment of indirect impacts and edge effects from the proposal and recommended on-site retained habitat/vegetation proposal in accordance with DECC's offsetting principles.

These issues are discussed in more detail in Section 5 of this report. These issues are now satisfactorily addressed by the proposal and are reflected in the recommended conditions of approval.

**Department of Water and Energy** ("DWE") stated that no Controlled Activity Approvals were required under the *Water Management Act 2000* as the proposal is a Major Project, however, raised the following concerns with the proposal:-

- Stormwater infrastructure - local infrastructure should not be located within the riparian corridors within the 6(a) and 7(a) zones;
- Stormwater infiltration - the site may not be suitable for stormwater infiltration due to the shallow water table and limited capacity of the unsaturated zone; and
- Groundwater Protection – for stormwater managed on site, measures need to be implemented to minimise impacts on groundwater quality and groundwater dependant ecosystems. The relevant State Groundwater Policies should be considered.

These issues are discussed in more detail in Section 5 of this report. These issues are satisfactorily addressed by the proposal and are reflected in the recommended conditions of approval.

**MidCoast Water** ("MCW") originally did not support the proposal and raised the following concerns:-

- Integrated Water Cycle Management – requested a comprehensive Integrated Water Cycle

Management Plan where the full water cycle is considered and all available options costed using a triple bottom line analysis;

- Concept Water Servicing Strategy – the Proponent was asked to provide details of the proportion of the development which may be serviced prior to the completion of the connection to the existing water supply and also outline a strategy for water servicing should the connection through to Precinct 2B not progress in a timely manner; and
- Concept Sewerage Servicing Strategy – servicing of the proposal will require the construction of Pump Station Old Bar 3A ("PS 3A") and associated rising main to proposed Pump Station Old Bar 8 ("PS8") in the adjacent Precinct 2B. MCW advised that a small proportion of the development may be allocated to the existing Pump Station Old Bar 3 ("PS3") prior to the required upgrade.

MCW were generally concerned with the lack of integration of a recycled water system for the site given their sewerage treatment plant will have reached its capacity in the near future and having regard to the capacity of the system set aside for this project. These issues are discussed in more detail in Section 5 of this report. These issues are satisfactorily addressed by the proposal and are reflected in the recommended conditions of approval.

**Department of Lands** ("DOL") did not object to the proposal but raised the following issues:-

- Road ownership - Banyula Drive and Medowie Road still hold the status as Crown Public roads and that since construction has occurred, these roads are to be transferred to Council. DOL states the developer should request the Council arrange to transfer and accept ownership of such roads in relation to the *Roads Act 1993*; and
- Runoff and sedimentation – run off and sedimentation from the proposal has potential to impact downstream Crown lands (bed of Oyster Creek) and that DOL agrees with Stormwater Quality Management Strategy, however, requests DPI review proposal.

It is considered that DOL should request that Council accept and transfer ownership of the relevant roads. The potential runoff and sedimentation is discussed in detail in Section 5 of this report. These concerns have been addressed and are reflected in the recommended conditions of approval.

**Department of Primary Industries** (Aquatic Habitat Protection) did not object to the proposal and did not raise any issues of concern.

**Rural Fire Service** did not raise objection to the proposal and provided recommended conditions of approval in relation to the provision of services and public road access requirements. These issues have been addressed in the recommended conditions of approval.

#### 4.3 Public Submissions

There were fourteen (14) submissions received from individuals within the community, 9 were generally supportive of the proposal and 5 raised objections. The reasons for supporting the proposal included the provision of open space, retention of the wetlands, provision of walking trails, a good balance between development and environment protection, a well designed subdivision layout which allows for the expansion of the town with services and an increased housing choice.

The objections and concerns included that:

- the project will increase traffic and make it more difficult for elderly people to cross Medowie Road;
- the ring road is not required to be an APZ and should therefore be housing lots (lots should back onto open space areas instead of the ring road to encourage wildlife protection); infrastructure should be constructed for Precinct 2B at the same time as Precinct 2A to minimise disturbance;
- the site is not bushfire prone;
- precinct 2B should be rezoned and developed first as the landowners are low income earners;

- the proposed walkway on 39 & 41 Garnet Crescent is provided over existing residential properties and a water easement and there is alternative locations for this walkway; and
- riparian buffer zone of 40 metres is not provided to the creek.

These issues are discussed in Section 5 of this report and a summary of all submissions is in **Appendix D**. The proponent responded to these submissions on 27 July 2008 and the proponent's response to submission is in **Appendix E**.

## 5 ASSESSMENT OF ENVIRONMENTAL IMPACTS

---

The Department considers the key environmental issues for this project to include the following:-

### 5.1 Water Cycle Management

#### Existing Surface Water Conditions

The site is traversed by two creeks and is located within 2 catchments. Banyula Creek flows through the eastern portion of the site and consists of a brackish, disturbed channel that is tidal for approximately half of its reach within the site up to a concrete causeway. Banyula Creek drains the existing urban area of Old Bar and flows under Banyula Drive through undeveloped land over the eastern portion of the site before joining Oyster Reach within the SEPP 14 wetland in the lower northern portion of the site. The Banyula creek catchment south of Banyula Drive is almost entirely developed and comprises approximately 60% of the catchment. The remainder of the catchment north of Banyula Drive comprises undeveloped land within the subject site.

Oyster Creek drains undeveloped land to the west of Old Bar and flows across undeveloped land to the west of the site within Precinct 2B, before flowing to the wetland and Oyster Reach. The Oyster Creek catchment is currently undeveloped with only a small number of dwellings in the catchment. Oyster Reach flows to Oyster Arm 500 metres further north, which is a short tributary of the Manning River South Channel.

#### Proposed Stormwater Management System

The proposed stormwater management strategy for the site utilises water sensitive urban design measures incorporating a series of treatment measures to reduce the quantity and increase the quality of stormwater draining to the receiving waters of the creek and wetland systems.

The design of the proposed stormwater system for the site was based on the following constraints:-

- Location of the site upstream of a SEPP 14 wetland;
- Limiting of peak discharge from the proposed development site to pre-developed levels;
- Inclusion of stormwater quality improvement devices where appropriate and necessary; and
- Water Sensitive Urban Design ("WSUD") stormwater management system.

The WSUD strategy comprises the following features:-

Grassed swales – proposed as a pre-treatment coarse sediment filtering measure for flows directed to bioretention swales that lead into constructed wetlands. These measures function by impeding flow by filtration through relatively long grass which slows the flow velocity and assist with sedimentation. These swales are located to the east of the subdivision area, adjoining proposed Roads Nos 1 and 3;

Bioretention swales - proposed as an intermediate stormwater treatment measure between the grassed swales and constructed wetlands. These swales consist of aboveground storage, which retains runoff volume for settling of medium to fine particles and includes vegetation for the uptake of nutrients, and below ground filter which detains filtered runoff for additional treatment and interception of fine particles and nutrients prior to infiltration to soils or discharge to the drainage system. These swales are located to the east of the subdivision area, adjoining proposed Basin A;

Constructed wetlands – are tertiary stormwater treatment measures, providing habitat and final polishing of runoff prior to discharge to the receiving waters. Proposed Basin A exists within the open space area proposed to be dedicated to the Council to the east of the development footprint and to the south of the existing crossing over Banyula Creek; and

Recycled water system – this system is to be designed at the detailed design stage as per discussions with MCW throughout the assessment of this project. Relevant conditions of approval have been recommended to

address this issue.

MUSIC modelling of the proposed stormwater system was undertaken and was found to comply with the adopted stormwater quality objectives for the site (80/45/45% reductions in TSS, TP and TN respectively).

The location of stormwater infrastructure within the 6(a) land is consistent with the layout adopted in the Local Environmental Study. This infrastructure largely consists of grassed swales and constructed wetlands which comprise naturally vegetated areas carefully contoured to provide drainage and filtration functions. This infrastructure does not detract from the use of this 6(a) land for public recreation and is therefore consistent with the zone objectives and development as envisaged by the Local Environmental Study adopted upon gazettal of the rezoning in March 2005.

The *NSW State Rivers and Estuary Policy* was prepared by the NSW Water Resources Council in August 1993 and is to be considered in this assessment with respect to the potential impacts on the creeks which flow into the Manning River. The objective of this Policy is to manage the rivers and estuaries of NSW in ways which slow, halt or reserve the overall rate of degradation in their systems, ensure the long-term sustainability of their essential biophysical functions and maintain the beneficial use of these resources.

These objectives are achieved through the application of the following management principles:-

- *Those uses of rivers and estuaries which are non-degrading should be encouraged;*
- *Non-sustainable resource uses which are not essential should be progressively phased out*
- *Environmentally degrading processes and practices should be replaced with more efficient and less degrading alternatives*
- *Environmentally degraded areas should be rehabilitated and their biophysical functions restored*
- *Remnant areas of significant environmental values should be accorded special protection;*
- *An ethos for the sustainable management of river and estuarine resources should be encouraged in all agencies and individuals, who own, manage or use these resources, and its practical application enabled.*

The proposed subdivision is consistent with these management principles as the project proposes rehabilitation of the wetland and open space areas as well as the use of water sensitive urban design measures (outlined above) in the proposed stormwater management strategy for the site. Therefore, it is unlikely that any significant impacts will occur to the creek systems on the site. The project is consistent with this policy.

### Groundwater

Groundwater depth on the site is quite shallow in the wetland areas while the bedrock areas are more elevated and groundwater depth is greater than 1 metre. Potential impacts on the groundwater quality associated with residential development include impacts from on-site wastewater management systems and reduced groundwater infiltration from stormwater due to increased impermeable surfaces.

The *NSW Groundwater Policy* was prepared by the NSW Department of Land and Water Conservation in August 1997, with the goal being to manage the State's groundwater resources so that they can sustain environmental, social and economic uses for the people of NSW. This Policy is achieved the application of the resource management principles outlined below:-

- *An ethos for the ecologically sustainable management of groundwater resources should be encouraged in all agencies, communities and individuals who own, manage or use resources and its practical application facilitated;*
- *Non-sustainable resource uses should be phased out;*
- *Significant environmental and/or social values dependant on groundwater should be accorded special protection;*
- *Environmentally degrading processes and practices should be replaced with more efficient and ecologically sustainable alternatives;*

- Where possible, environmentally degraded areas should be rehabilitated and their ecosystem support functions restored;
- Where appropriate, the management of surface and groundwater resources should be integrated;
- Groundwater management should be adaptive, to account for both increasing understanding or resource dynamics and changing community attitudes and needs;
- Groundwater management should be integrated with the wider environmental and resource management framework, and also with other policies dealing with human activities and land use, such as urban development, agriculture, industry, mining, energy, transport and tourism.

Given clay is the predominant underlying material under the basins and so essentially impermeable, it is considered that the groundwater on the site will not be adversely affected by the proposal. The use of water sensitive urban design measures for the collection and treatment of stormwater is considered to be ecologically sustainable and will not result in the degradation of the groundwater resource. Reticulated sewer will further reduce the potential for groundwater contamination.

### Flooding

The primary objective of the *NSW Government's Flood Prone Land Policy* is to reduce the impacts of flooding and flood liability on individual owners and occupiers of flood prone property and to reduce private and public losses resulting from floods, utilising ecologically positive methods wherever possible.

The predicted ARI 100 year inundation level for the site is **2.45m AHD**, with the level of all proposed allotments to be approximately 3.4m AHD. The area proposed for urban development does not encroach on the predicted ARI 100 year inundation area as outlined in Figure 6. The potential impact of sea level rise as a result of climate change is discussed below in relation to flooding.

Figure 6: ARI 100 year Peak Flood levels for the site and the proposal

(Source: Concept Stormwater Plan, prepared by McGlashan & Crisp Pty Ltd dated July 2007, Appendix D of the EA)



### Climate Change and Sea Level Rise

DECC have released the Floodplain Risk Management Guideline, *Practical Consideration of Climate Change* (McLuckie et al, 2005) to give guidance in assessing the risk flooding posed by climate change. The stormwater and flood assessments considered the predicted future storm frequency curves (McLuckie et al, 2005), and the flood assessment considers the cumulative impact of sea-level rise on the flood-levels (which are provided in DECC, 2007).

The impacts of climate change on sea levels and flood producing rainfall events will have a compounding effect on flood behaviour which would result in key flood levels being reached more frequently and floods of the same average recurrence interval, ARI, being of a larger magnitude.

The DECC guideline is consistent with the 0.9m sea level rise by 2100 which is stated as the NSW sea level rise planning benchmark in the *Draft Sea Level Rise Policy Statement of the NSW Government* prepared in February 2009. This was established by considering the most credible national and international projections of sea level rise and takes into consideration the uncertainty associated with sea level rise projections.

The Proponent provided the Department with a supplementary report from McGlashan & Crisp Pty Limited dated 22 October 2008 on potential impacts of climate change on flooding and the possible implications for the proposed residential development at the subject site. The assessment has been based on the relevant DECC guidelines. This climate change study considered the ARI 100 year flood levels and explored possible sea level rise as well as possible increased rainfall in extreme rainfall events in the catchment as specified in the guidelines.

The finished ground levels of the lowest levels of the proposed development vary between RL 2.42m AHD and RL 2.45m AHD adjoining both Banyula and Oyster Creek. It is proposed to fill the land that adjoins these creeks such that the finished fill level of the lots is expected to be **RL 3.4m AHD**. Given the requirements of the *Building Code of Australia*, the subsequent building floor levels for dwellings on these lots would be **3.65m AHD**.

The report found that both sea level and increased rainfall intensity could change flood levels and rates of rise at the site with the following estimates being provided:-

Table 2: Combined Sea Level and Increased Rainfall Change

Factor	Estimated range of levels (0.18 to 0.91)
Conservative Flood Level Calculation	RL 2.45m AHD
Add Sea Level Rise (+0.18 to +0.91) DECC figures	RL 2.63m to RL 3.36m AHD
Add Increased Rainfall Flood Level (0.06m) DECC figures	RL 2.69m to RL 3.42m AHD
Expected Floor Level	RL 3.65m AHD
Freeboard including Climate Change	0.96m to 0.23m

Therefore, the implication of climate change on the proposed development is this potential increase in the 1 in 100 flood level.

While the Department concurs with the sea level rise and additional increased rainfall adjusted 1% flood levels, there are some concerns with the Proponent's assessment of sea level rise.

The Proponent has not factored in a 500mm freeboard required by the NSW Government's *Floodplain Development Manual: The Management of Flood Liable Land* (April 2005) ("the FDM") and the Council's Subdivision DCP into the finished fill level for the subdivision or the minimum floor level for future dwellings on the site. Therefore, 500mm needs to be added to RL 3.42m AHD (1% flood level calculation including sea level rise of 0.91m and additional increased rainfall 0.06m). This results in a finished fill level of **3.92m AHD**. Instead

of requiring additional fill material to be placed on the site, it is considered that a restriction be placed on the title requiring future housing to have a minimum floor level (flood planning level) of **3.92m AHD**.

The FDM also requires that roads provide access during a flood event so that evacuation may occur if required. In the current project, it is unclear whether all of proposed Road Nos 1b, 7 and 8 will be over the 1% level plus climate change levels as outlined above. To ensure that such access is available at all times, relevant conditions of approval requiring all roads within the subdivision to be located at a level in accordance with the requirements of the *Floodplain Development Manual: The Management of Flood Liable Land* (August 2005) for safe egress have been recommended to be imposed.

Given the levels of the other parts of the catchment are higher than the subject site, there is unlikely to be any significant impacts upstream of the site from the proposed filling. The proposed constructed wetlands/basins will further assist in providing flood storage so as to minimise potential impact on upstream properties.

The Department is of the view that the proposed fill and restriction on flood planning levels is a viable option for responding to potential flood levels caused by climate change, without creating flow-on environmental or amenity impacts in the vicinity

## Resolution

The Department is satisfied that the project provides adequate measures for the protection of surface and groundwater quality and that flooding is unlikely to present a hazard to future development based on appropriate conditions of approval being imposed. In addition, the Department considers that sea level rise as a result of climate change has been adequately addressed. Relevant conditions of approval have been recommended to be imposed which reflect the measures proposed by the Proponent.

## 5.2 Infrastructure Provision

### Sewer

The Sewer Concept plan is designed to provide a sewer junction on each lot, with sewerage from this site to be pumped to the Old Bar Wallabi Point Waste Water Treatment Plant ("WWTP") in Saltwater Road, Wallabi Point for treatment. Currently sewerage from the neighbourhood is directed to Pump Station No3 (PS3) in the south-eastern corner of the site, which was constructed in the early 1980s. It has an invert level of about -1.14m AHD at the receiving manhole BA/1 and pumps sewerage via a rising main through the village to PS1 on the southern side of the village. PS 1 pumps it to the WWTP.

During the rezoning process MidCoast Water determined that PS3 would have adequate capacity for the eastern watershed of this catchment. On that basis Greater Taree City Council broke down the Old Bar Wallabi Point Precinct 2 catchment. Precinct 2 was split into Precinct 2A, with existing sewer capability, and 2B which required development of proposed Sewer Pump Station 8. The Concept Sewer plan has been devised for this project having regard to the 'Old Bar Sewerage Scheme, Sewerage Servicing Strategy' (Ellis Karm & Associated May 2001) ("the Karm report").

Precinct 2A sewer will be directed to the PS3 sewer pump station site. Currently a creek crossing exists near the south-eastern corner of the site. The connection is at Manhole 17289 with an invert of 1.65m AHD. Whilst this connection will service the initial stages of this development, the level is too high to provide sewer service to the whole of Precinct 2A and an additional connection will be required. Pump Station 3 has an invert level of approximately -1.14m AHD. The sewer line to the north of PS3 (Line H) servicing the rear of the Gannett Crescent allotments will provide access into the existing network at depth. After the initial stages of the development a connection will be required somewhere along this section of Line H at a point yet to be determined. The depth of this connection will provide sewer services for all of Precinct 2A. Relevant conditions have been recommended to be imposed.

### Sewer Servicing

The Proponent in the Response to Submissions dated 11 July 2008, stated that concept water and sewer servicing strategies can be addressed during the detailed design phase for the construction of the proposed works. In relation to the potential use of a reticulated non-potable water reuse system, the Proponent stated that this was considered, however, due to the sensitive nature of the adjoining SEPP 14 wetland, this system was dismissed as being unsuitable for the site.

In a further submission from MCW dated 13 August 2008, following this Response to Submissions from the Proponent, the following comments were received:-

*"Our main objection to the Proponent's proposal is that the incorporation of reticulated recycled water into the project has been ruled out as "considered inappropriate". MidCoast Water does not accept this conclusion given that there is insufficient justification presented in the Environmental Assessment for this position. MCW believes that an Integrated Water Cycle Study would be required before any conclusions could be drawn about the appropriateness of reticulated recycled water to the site."*

MCW stated that the Greater Taree Council *Old Bar/Wallabi Point Development Strategy* as adopted in 2001 provided yields which were capable of being serviced by the existing WWTP at Wallabi point as outlined in MCW's "Sewer Servicing Strategy for Old Bar" ("SSS"). The currently expected yields for this site and other Old Bar Precincts greatly exceed those nominated in MCW's SSS and will exceed MCW's available capacity for dune based effluent management at the WWTP.

This has led MCW to require the utilisation of reticulated recycled water as a potential solution to the limited effluent management capacity and which could enable MCW to satisfactorily cater for the expected yields on the site. The alternative is for the proposal to be limited to 80 ET which can be adequately serviced.

MCW stated that the preparation of a comprehensive Integrated Water Cycle Management Plan where the full water cycle is considered and all available options costed using the Triple Bottom Line analysis, will identify the most sustainable solution. The potential water recycling option may affect the use of rainwater tanks on the site and therefore must be considered as part of an integrated solution of the site.

MCW provided further advice in emails dated 17 and 18 September 2008 which stated that the proponent was requested to provide an IWCM Plan as early as April and August 2006 and in the absence of such a plan, a recycled water servicing strategy should be prepared as a minimum. MCW have requested the IWCM Plan repeatedly over the past 2 years and have always maintained that the issues raised by the Proponent that the site was unsuitable for recycled water, could be resolved but may require alternate solutions to the traditional pit and pipe networks, may require larger storage and treatment footprints etc.

MCW concurred with the Proponent that the detailed sewer and water servicing requirements can be dealt with at the detailed design stage. Furthermore, MCW have also advised that the utilisation of a reticulated recycled water supply can also be incorporated into the proposal at the detailed design stage and that a condition of approval has been recommended to be imposed by MCW. These matters have been addressed in the recommended conditions of approval.

### Water

The Water Concept Plan is designed to provide a water service on each lot with an Ø150mm PVC main already in place on the western side of Road 1 to the boundary of the development. The water main in Banyula Drive is connected to the village reticulation network by an Ø150mm main along Medowie Road connecting to the main feed in Old Bar Road and via the village network that feeds into Waterman Street and services Molong Road and the village areas to the north and east. Initially these existing connections will provide the water supply for this development.

During the preparation of the Construction Certificate plans for this development, the Water Concept Plan will be subject to detailed hydraulic analysis to confirm the sizing of mains in the proposed reticulation system and ensure that the servicing of this development will conform to MidCoast Waters' design standards.

### Telecommunications and Electricity

The project will provide telecommunication connections and electricity to all allotments as the main electricity feeder line for the village of Old Bar passes through the property, entering from the Bohnock sub station along Red Gum Road in the north and traverses the closed road Lot 1 DP48330 to Banyula Drive. Country Energy has advised that there is adequate capacity to service this development. In the process of developing this area high voltage electricity mains will be placed along the alignment of Road 1. This underground HV main will eventually make the connection from the creek crossing in the north to the Banyula Drive & Road 1 intersection. At that time the existing overhead line will become redundant and removed from the site.

### **Resolution**

There is existing capacity in the overall water and sewer networks to cater for the full development of this site. While the existing sewer and water infrastructure can only service the initial stages of the proposed development, monitoring and detailed analysis of the water and sewer systems during the detailed design phase of the project will determine the time and nature of any augmentation works that may be required in the long term. Thus the Department is satisfied that adequate service will be provided for the project on the site subject to the recommended conditions of approval which reflect the relevant servicing requirements.

### **5.3 Impact on Wetland**

Wetland No 571 listed under *Sate Environmental Planning Policy No 14 – Coastal Wetlands* ("SEPP 14") exists in the northeast corner of the site and comprises land zoned 7(a) Environmental Protection Habitat under LEP 1995. This wetland extends over several sites in the vicinity with the portion existing over the subject site comprising approximately 14 hectares. The boundary of this SEPP 14 wetland was amended on 6 October 2006 (Amendment 15; Government Gazette No 122) to remove approximately 0.9Ha of the wetland that did not meet the criteria of SEPP 14 and to add significant areas of Melaleuca swamp forest. The zoning of the site accords with this revised boundary of the SEPP 14 wetland which is illustrated in Figure 7.

Figure 7: The revised boundary of the SEPP 14 wetland on the site (wetland No 571).  
(Source: Department of Planning GIS System)



The *Local Environmental Study* prepared by Terra Consulting dated November 2003 ("the LES") concluded that the location of this SEPP 14 wetland was the greatest constraint to development on this site. The LES stated that notwithstanding that the wetland was degraded, due to its sensitive nature, and the fact that it's poorly drained, contains potential acid sulphate soils and is periodically inundated by the highest tides, the SEPP 14 area was not suitable for development of any type.

The LES also concluded that the wetland boundary should be re-mapped to reflect the physical and vegetative limits and that the degraded parts of the wetland, most notably the immediate northern portion of the site, be rehabilitated back to their natural state. This was to be conducted in conjunction with the relevant Aboriginal groups given the presence of Aboriginal Heritage in the SEPP 14 wetland. This revised mapping has been completed as outlined above.

The project includes several reports and studies which provide a discussion on and make recommendations for the SEPP 14 wetland. These reports include the *Overview of Ecological & Wetland Issues Affecting Precinct 2A, Old Bar* prepared by Geoff Winning dated 6 March 2006 ("the Wetland report"), the *Landscape Management Plan* prepared by ID Landscape Management Pty Ltd dated July 2007 ("LMP") and the *Concept Stormwater Plan* prepared by McGlashan & Crisp Pty Ltd dated July 2007.

The Wetland report describes the wetland and its vegetation and provides recommended mitigation measures to protect the wetland. The wetland is defined by a causeway constructed across the wetland as part of historical land use activities on the site boundary which effectively limits tidal inundation such that downstream of the cause way the wetland is tidal estuarine, comprising an extensive area of salt marsh plus mangroves along the banks of the tidal creek. Upstream of the causeway, Swamp Oak forest dominates, and this gradually gives way to a Melaleuca-dominated forest. The wetland is illustrated in Figures 8 and 9.

Figure 8: The SEPP 14 wetland – downstream of the causeway  
(Source: *Wetland Report* prepared by Geoff Winning dated 6 March 2006)



Figure 9: Aerial Photo of The SEPP 14 wetland on the site (wetland No 571).  
(Source: Wetland Report prepared by Geoff Winning dated 6 March 2006)



No development is proposed within the wetland as this area forms the residual allotment. Therefore, the main ecological concerns in relation to the SEPP 14 wetland are potential indirect impacts from the project. The main issues of concern in this regard include increased stormwater runoff, stormwater sediment load and stormwater nutrient load as well as impacts resulting from intrusion by people and vehicles, rubbish dumping, and predation by domestic pets. The issues are discussed below.

1. Ecological Impacts - The SEPP 14 wetland contains remnant natural communities which are listed as endangered ecological communities (EECs) in Part 3 of Schedule 1 of the *Threatened Species Conservation Act 1995* (TSC Act). These communities comprise Coastal Saltmarsh, Swamp Oak Floodplain Forest and Swamp Sclerophyll Forest on Coastal Floodplains. There are no works proposed within the SEPP 14 wetland or to any vegetation listed as an EEC and therefore there will be minimal adverse impacts on the ecological values of the wetland.
2. Stormwater Impacts - Stormwater runoff from the site must be treated prior to discharge into the wetland. The Wetland report states that stormwater can affect estuarine wetlands through increased sediment load, increased nutrient load, and decreased salinity (by leaching of salt from soil). The salinity issue would be mitigated by ensuring all stormwater runoff from developed surfaces would be discharged (after treatment) into the natural wetland upstream of the existing limits of tidal inundation. Treatment of stormwater runoff from developed surfaces is addressed by the stormwater management system incorporating constructed treatment wetlands (discussed in Section 5.1 of this report). The stormwater system was found to be satisfactory.

The *Stormwater Quality Management Strategy* prepared by WBM Pty Ltd dated 3 July 2007 submitted with the Concept Stormwater Plan concluded that the proposed stormwater management strategy would achieve best practice management of stormwater runoff from the site and that the provision of treatment train measures in series from the site sources to the site outlet affords the best possible protection for the receiving waters by providing a system that provides a level of redundancy. It is evident therefore that there is unlikely to be any significant adverse impact on the SEPP 14 wetland as a result of stormwater runoff from the site.

3. **Ownership and Management** - The SEPP 14 wetland and adjoining 6(a) zoned land comprising the buffer zone will be dedicated to the Council prior to the completion of the development. This will ensure the long-term management is undertaken in accordance with the public interest and relevant plans of management.
4. **Rehabilitation** - The LMP identifies short and long term environmental management strategies to mitigate and monitor habitat modification associated with the SEPP 14 wetland with a particular emphasis on the impact of the weed species *Juncus acutus*. These management strategies are based on 3 zones within the Public Reserve, illustrated in Figure 10, outlined in Table 3.

**Table 3: Rehabilitation Zones for the Wetland**

Zone	Characteristics	Description
Zone 1	Salt marsh - drainage lines and immediate margins	Significant vegetation zone – saltmarsh with mangrove development and some <i>Juncus acutus</i> encroachment.
Zone 2	Degraded salt marsh areas under existing slashing regime	Significant vegetation zone – saltmarsh with exotic grasses and <i>Juncus acutus</i> encroachment
Zone 3	Buffer zone open grassland – passive/active recreation	Contains open space, wet detention basins, walking/cycling paths, amenity plantings.

The following works are proposed within the SEPP 14 wetland:-

- Develop a 'Weed Control Action Plan' with base-line mapping of level of *Juncus acutus* infestations and any other environmental weeds determined to be of significance within zones 1 and 2 to be undertaken by the proponent and reviewed at the end of a 12 month maintenance period.
- Undertake initial control phase on *Juncus acutus* using accepted 'best practice' techniques (include both mechanical and chemical means). Avoid wet seasonal conditions so as to ensure adequate access and maximise effectiveness of control activities within zones 1 and 2 to be undertaken by the proponent and reviewed at the end of a 12 month maintenance period;
- Follow up control phases within 12 month maintenance period within zones 1 and 2 to be undertaken by the proponent and reviewed at the end of a 12 month maintenance period in zones 1 and 2;
- Continue seasonal slashing to prevent the seeding and spread of *Juncus acutus*. Spot spray bases of slashed *Juncus acutus* (following control regime for Zones 1 and 2);

These rehabilitation works will assist in restoring the SEPP 14 wetland to its natural state and will ensure habitat is protected within this important ecosystem.

**Figure 10: The Zones under the Landscape Management Plan**

(Source: Landscape Management Plan prepared by ID Landscape Management Pty Ltd dated July 2007)



5. Edge effects and Buffer Zone - A buffer zone of 40 metres was required along the edge of the wetland by the LES which was incorporated in the rezoning by virtue of its 6(a) zoning. The LES and rezoning also envisaged stormwater management infrastructure and asset protection zones to be incorporated into this buffer zone to ensure minimal impacts on the SEPP 14 wetland. The SEPP 14 wetland is protected largely from edge effects which may result from the proposal due to the location of this 40 metre wide naturally vegetated buffer zone. The use of this portion of the site is further discussed in Section 5.4 of this report.

Works adjoining the SEPP 14 wetland and within this buffer zone denoted as Zone 3 in Figure 9 proposed in the LMP include:-

- Establish protective fencing to exclude vehicular access to the Salt marsh and establish mulched planting treatments at intervals using the recommended species list within zone 3 to be undertaken and monitored by the proponent for 12 months;
- Establish mulched block plants of native species to complement the walking/cycling path to be constructed by the Proponent in zone 3; and
- Proponent to construct wet detention basins in zone 3.

These works will assist in minimising potential edge effects on the wetland as a result of the project as people and vehicles will be largely excluded from the wetland thereby reducing potential adverse impacts. The preliminary buffer recommendations of the Wetlands report include the following (refer to Figure 11):

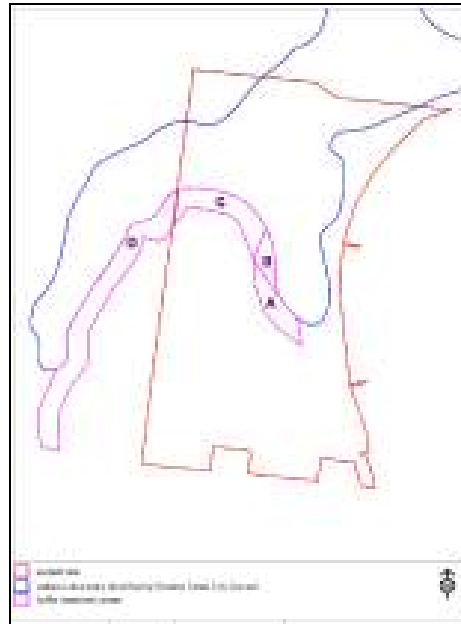
- A perimeter road should be constructed such that the outer edge of the pavement coincides with the outside edge of the 6(a) zone. Verge, etc. associated with the road and nominally included within the road easement to be included within the 6(a) zone.
- Pathway / cycleway to be included within 6(a) zone adjacent to road easement.
- Assumed combined road verge / cycleway width of 10m, leaving 30m of buffer width to be treated as follows (see Figure 3).
- Area B - This area contains a large area of marginal wetland vegetation and should not be revegetated nor mown. A low barrier should be constructed between the cycleway and the remnant marginal wetland vegetation. Infrequent removal of self-sown trees would be required.
- Area C - This area has excellent views across the Saltmarsh and would make ideal parkland for informal passive recreation. The whole 30m width should be planted with clumps of trees (8-10 trees per clump) and isolated trees with a wide separation between trees and clumps (min 20m). This area would need to be mown. A low barrier should be constructed along the outer edge of the 6(a) zone to ensure no mower incursion into the wetland.
- Area A - The first 10m on the outside of the cycleway should be planted with isolated trees and isolated clumps of trees (as described above). The remaining 20m should be excavated / embanked, as required, to create a shallow linear wetland (or series of separate wetlands) which would provide stormwater treatment, additional habitat and fire protection. These linear constructed wetlands would replace the proposed swale and pond system. More detailed design criteria are obviously required if this treatment is considered acceptable.

#### The NSW Wetlands Management Policy 1996

The *NSW Wetlands Management Policy 1996* ("the NSW Wetlands Policy") aims to promote the conservation, sustainable management and wise use of NSW wetlands by all stakeholders for the benefit of present and future generations. Adoption of the NSW Wetlands Policy means that the Government, in its decision-making, will give explicit consideration to the biophysical requirements of wetlands with the goal of ensuring their sustainable management. The NSW Government encourages the management of wetlands of the State so as to halt and where possible, reverse loss of wetland vegetation, declining water quality, declining natural productivity, loss of biological diversity and declining natural flood mitigation. To encourage projects and activities which will restore the quality of the State's wetlands, such as rehabilitating wetlands, re-establishing vegetation buffer zones around wetlands and ensuring adequate water to restore wetland habitats are also aims.

**Figure 11: Wetland zones.**

(Source: Overview of Ecological & Wetland Issues Affecting Precinct 2A, Old Bar prepared by Geoff Winning dated 6 March 2006)



The proposal is considered to be consistent with the Wetlands Policy for the following reasons:-

- There is no proposed removal of any vegetation within the SEPP 14 wetland, with the exception of weed species;
- The wetland is proposed to be rehabilitated through the removal of weed species and the exclusion of unauthorised entry by vehicles and people;
- The embellishment of an appropriate buffer zone around the SEPP 14 wetland through zoning controls and land ownership through the dedication of the wetland and buffer zone to the Council;
- The conservation of water quality entering the wetland system as a result of the proposed stormwater management system for the site utilising water sensitive urban design measures in a treatment train which allows for redundancies;
- The construction of artificial wetlands for stormwater management will be located outside of the SEPP 14 wetland area;
- Biological diversity and natural productivity of the SEPP 14 wetland will be restored as a result of the removal of environmental weeds, the provision of the buffer zone and the exclusion of unauthorised entry to the wetland;
- The project is consistent with the recommendations of the Wetland Report prepared by a suitably qualified consultant.

## Resolution

The project addresses the wetland and a public reserve issue raised in the DGRs and proposes to mitigate impacts on the SEPP 14 by:-

- Minimising habitat removal, fragmentation, creation of edge and barrier effects and potential for road strike by excluding the wetland/salt marsh vegetation from the subdivision area and placing it within a Public Reserve for future protection and management by the Council;
- Providing a buffer zone to the wetland and drainage line by the establishment of a Public Reserve and containing sections of both Banyula creek and Oyster Creek;
- Minimising habitat modification from alteration of nutrient levels, water quality and hydrological regimes by the form and extent of the subdivision and the proposed implantation of the Stormwater Concept Plan; and
- Defining a 'Landscape Concept' which utilises local native species as a theme so as to avoid long term

problems with environmental weeds and encroachments into environmentally sensitive areas.

The Department is satisfied that potential impacts of the SEPP 14 wetland have been adequately mitigated by the proposal through the location of the development outside of this area, the proposed rehabilitation of this wetland area, the inclusion of an adequate buffer zone around this sensitive area, the dedication of the wetland to the Council and the satisfactory stormwater concept plan for the site. The proposal is consistent with the NSW Wetlands Policy. A Vegetation/Habitat Management Plan is also required to be prepared for this residual allotment including the SEPP 14 wetland.

#### **5.4 Management of Open Space and Connectivity**

The proposal involves approximately 19 hectares of land which is to be dedicated to the Council and managed as open space and environmental protection. This land comprises 5 hectares of 6(a) open space and 14 hectares of 7(a) wetland area under LEP 1995 and consists of the residual allotment. A variety of uses of these areas are proposed including public walkways/cycleways, exercise areas, stormwater management areas and conservation of important ecological communities and Aboriginal cultural heritage. These areas are to be dedicated to the Council upon completion of the project.

This dedication has been provided for in a Deed between the owner of the site and the Council dated 1 July 2004, which was agreed to during the consideration of the rezoning application. The Proponent has provided for this dedication in the Statement of Commitments and accordingly, the Department considers that a condition of approval be imposed requiring this dedication.

The project involves the construction of public walkways and exercise points which utilise the buffer zone areas to the wetland. The public walkways in this area connect with the footpaths within the development footprint of the project and will eventually link up with footpaths proposed within the Precinct 2B land. An existing concrete causeway over Banyula Creek will be retained as part of the proposed public walkway area.

The public walkways through this site are proposed to link up to footpaths in the existing residential area of Old Bar in the vicinity of Gannett Crescent to the east of the subject site between Lots 24 and 25 in DP 708259 and Lots 9 and 10 in DP 708259 via 4 metre wide strips of land. Such links occur through land set aside under survey which allows for small pathways to be provided between existing allotments. These pathways allow for linkages from the subject site to other areas of public open space such as Old Bar Beach and State Park via Gannett Crescent and Leopardwood Drive. These pathway linkages are roughly aligned with existing streets in the Old Bar existing residential area to ensure pedestrian connectivity is provided.

In the long term the walking path is designed to connect from Saltwater (Khappinghat Creek Reserve) through to Mud Bishops and Old Bar Reserve at Farquhar Inlet. These trails would pass adjacent Turark Aboriginal site and make traditional connections across the country. These trails are an integral part of the Precinct 2A designs. The footpaths shown on the plans, landscaping plans and other documentation all form part of the trails network. This open space area will also incorporate the Aboriginal cultural heritage items which are discussed in detail in Section 5.7 of this report.

The works proposed in these open space areas are illustrated in Figure 12 and are outlined in the *Landscape Management Plan* prepared by ID Landscape Management Pty Ltd dated July 2007 ("the LMP").

The objectives of the 6(a) Open Space Recreation pursuant to LEP 1995 include:-

- a) *the development of open space in a manner which optimises the satisfaction of recreation needs of the community, and*
- b) *the provision of development associated with, ancillary to, supportive of, or compatible with, recreational use.*

The proposed use of the open space areas for public pathways, exercise points and conservation of Aboriginal cultural heritage are considered to meet the recreation needs of the community and are therefore consistent with the zone objectives.

The provision of stormwater infrastructure within this open space area is considered to be compatible with this recreational use of the open space areas given the basins are to be vegetated and the geography of the site lends itself to the installation of these longitudinal ponds. The stormwater ponds have been designed to appear as natural levees that occur around coastal rivers and creeks with a small constructed wetland in the base. The public walkway will be constructed along the top of this pond. The location of such stormwater management infrastructure within the public open space areas are therefore considered to be consistent with the zone objectives and were envisaged in the rezoning of the site.

Figure 12: Works proposed in Open Space areas

(Source: Landscape Management Plan prepared by ID Landscape Management Pty Ltd dated July 2007)



## Resolution

The project addresses the management of open space and connectivity raised in the DGRs and proposes to provide adequate public open space areas and pedestrian connections through the proposed LMP and the dedication of these areas to the Council upon completion of the project. Relevant conditions of approval have been recommended to be imposed to reflect these requirements. A Vegetation/Habitat Management Plan is also to be provided for the residual allotment.

## 5.5 Traffic and Access

The EA is supported by a Traffic Impact Study prepared by Northern Transport Planning and Engineering Pty Ltd dated September 2007 ("the Traffic report"). The traffic report discusses the traffic impacts of the proposal and outlines the access and intersection sight distances. The issues to be considered in this section are traffic generation, access points and the surrounding road network and the design of the internal road system, which are discussed below. The pedestrian and cyclist connectivity of the project was discussed above. The public walkways in this area connect with the footpaths within the development footprint of the project and will eventually link up with footpaths proposed within the Precinct 2B land.

The existing road network in the vicinity of the site comprises Banyula Drive, a local road which adjoins the collector road of Medowie Road which in turn connects to Old Bar Road, the sub-arterial road which provides access to Old Bar from surrounding areas. This road network is illustrated in Figure 13. The *Draft Development Control Plan for Old Bar Precinct 2B* ("2B DCP") requires a Boulevard collector road to connect Banyula drive with Old Bar Road. This would reduce traffic utilising Medowie Road by directing through traffic onto the collector road (Banyula Drive) and onto the sub-arterial road (Old Bar Road). The proposed development is consistent with this future road layout envisaged by the 2B DCP.

Figure 13: The existing road network in the area  
(Source: Google maps)



#### Traffic generation

The Traffic report estimated that the proposal will generate an additional 83 vehicle movements at the AM and PM peak hour following an analysis of the daily trip generation rates from the RTA's *Guide to Traffic Generating Developments* (using a traffic generation rate for dwelling houses of 0.85 peak hour vehicle trips per dwelling). The traffic report also estimated that 60% of these movements will use Old Bar Road west of Medowie Road. The proposal would therefore generate an additional 50 vehicle movements on Old Bar Road during the peak hour resulting in peak flows on Old Bar increasing to 732vph. Allowing for a 2% increase in traffic to the period 2017, the peak hour flow would be 892vph which would not exceed the capacity of the road nor result in a lowering of the level of service provided by the road. Accordingly, traffic generation from the proposal is acceptable.

#### Access to the site

Access to the site for the project is proposed to be provided via a new road which has been constructed off Banyula Drive. This road is illustrated in Figure 14. This existing road has a 11 metre wide carriageway located within a 19 metre wide reserve and is proposed to be continued into the site as Proposed Road No 1. Proposed Road No 1 narrows to a 9 metre wide carriageway in the northern section of the subject site and is proposed to

be continued through to the adjoining site, known as Precinct 2B, when the rezoning of that site is finalised. This will provide for a through-collector road which will assist connectivity between the precincts, in particular for public transport and public pathway purposes.

The Council requires this road to have a 20 metre reservation and an 11 metre carriageway for its full length in accordance with the Council's specification document *AusSpec* and is standard for all subdivisions. This requirement is reflected in the recommended conditions of approval.

The safe intersection sight distance of 89 meters required by *Guide to Traffic Engineering Practice 2005* prepared by *Ausroads* for this new road off Banyula Drive has been achieved given the vertical alignment of Banyula Drive is relatively flat and has a speed limit of 50kph.

**Figure 14: Existing new road to provide access to the project**  
(Source: Google maps/Street view)



#### Internal road layout

The project involves the construction of an internal road network to service the proposed allotments which will eventually link up with proposed roads of a similar layout in the adjoining land known as Precinct 2B. There was some disagreement between the Proponent and the Council in relation to the proposed road widths for the project, which are outlined in Table 4.

**Table 4: Internal Road Widths**

Road No	Proposed Width (Proponent)	Description	Council requirements
1a	19m reservation 11m carriageway	Collector road	20m reservation 11m carriageway
1b	18m reservation 9m carriageway	Collector road	20m reservation 11m carriageway
2	18m reservation 9m carriageway	Local road (with temporary turning circle pending connection to Precinct 2B)	16m reservation 8m carriageway
3a	16m reservation 8m carriageway	Local road	13.5-15m reservation (Access Place) 5.5-7m carriageway
3b	12m reservation 5m/7.5mm carriageway	Local road - shareway	13.5-15m reservation (Access Place) 5.5-7m carriageway
4a	15m reservation	Local road	13.5-15m reservation (Access Place)

	7.5m carriageway		5.5-7m carriageway
4b	12m reservation 5m/7.5m carriageway	Local road - shareway	8.5m reservation (shareway) 5m carriageway
5a	15m reservation 7.5m carriageway	Local road	13.5-15m reservation (Access Place) 5.5-7m carriageway (Access Place)
5b	12m reservation 5m/7.5m carriageway	Local road - shareway	8.5m reservation (shareway) 5m carriageway
6	18m reservation 9m carriageway	Local road	16m reservation 8m carriageway
7	16m reservation 8m carriageway	Local road	13.5-15m reservation (Access Place) 5.5-7m carriageway
8a	16m reservation 8m carriageway	Local road	13.5-15m reservation (Access Place) 5.5-7m carriageway
8b	12m reservation 5m/7.5m carriageway	Local road - shareway	8.5m reservation (shareway) 5m carriageway

The Council requires that the proposed internal road system comply with the Council's specifications which apply to all subdivisions and must be applied to the current project. The proposed internal roads will service both the current project as well as the additional development likely to occur within Precinct 2B if the rezoning of that land proceeds. It is sound strategic planning practice to provide roads for the likely future use of surrounding areas and in accordance with adopted specifications to ensure the road can fulfil its required functions.

### Resolution

The project addresses the traffic and access issues raised in the DGRs and proposes to provide an adequate internal road system as amended in conditions by the Council. Relevant conditions of approval have been recommended to be imposed to reflect these requirements.

### 5.6 Flora and Fauna

The flora and fauna issues required to be addressed in the DGRs are considered in the *Flora and Fauna Assessment Report* prepared by Orogen Pty Ltd dated 12 April 2007 ("the Flora and Fauna Report"). The objectives of this report were to determine the threatened species and endangered ecological communities known or likely to occur on the site and to formulate mitigation measures required to alleviate potential impacts of the proposal on such species and communities. The *Landscape Management Plan* prepared by ID Landscape Management Pty Ltd dated July 2007 ("the LMP") outlines the restoration of the wetlands and general landscape treatments within the dedicated Public Reserve, nature strips and shareways.

The flora and fauna report made the following conclusions:-

- The site has an area of approximately 50 hectares and it is proposed to develop 24 hectares (24%). The remainder of the site is to be conserved in the form of open space areas to be dedicated to the Council;
- The site contains several vegetation communities including:-
  - Mangrove Riparian Forest
  - Mangrove/*Juncus* riparian vegetation
  - Salt marsh
  - *Casuarina glauca* Swamp Oak Forest
  - *Melaleuca/Casuarina glauca* Swamp Forest
  - *Eucalyptus robusta/Melaleuca quinquenervia* Swamp Forest
  - Cleared land with scattered trees;

- In general, the areas of significant vegetation are associated with Banyula and Oyster creeks. The swamp communities along Oyster creek grade into Salt marsh towards the northern extent of the site, with this transition resulting in *Eucalyptus robusta* being replaced by *Casuarina glauca*, *Melaleuca quinquenervia* and other *Melaleuca* species. Swamp Oaks then dominate and salt marsh vegetation becomes dominant further north. Mangroves also occur at the northern extent of the site.
- Several Endangered Ecological Communities ("EECs") occur within the creek lines and surrounding land including:-
  - Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions;
  - Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions; and
  - Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions.
- A small number of Sydney Peppermint (*Eucalyptus piperita*) has been identified within the subject site. These trees comprise a minor component of the scattered paddock trees and were identified at the southern portion of the site near the existing dwelling. The occurrence of this species is significant given it is known to be near its northern distributional limit.
- The Saltmarsh and riparian areas contain the most significant vegetation which provides foraging and roosting sites for a variety of fauna species and will be protected from development in the current project;
- The proposed development area is comprised of cleared land and scattered trees with a highly modified understorey that is dominated by exotic grass species and as such was found to offer little in terms of habitat value for threatened species. This vegetation, however, may offer some foraging resources for up to 14 threatened species listed under the *Threatened Species Conservation Act 1995* ("TSC Act"). It is unlikely that these species would be dependant upon these habitats alone and the proposed development will not cause isolation of habitats in the locality and the foraging resources proposed to be removed are considered negligible. Any loss will be compensated through the landscaping of open space areas.
- The proposal will not result in the fragmentation of any interconnecting areas of habitat occurring in the locality as the retention of the swamp and wetland habitats will maintain connectivity to habitats adjoining the site.

The *Local Environmental Study* prepared by Terra Consulting Pty Ltd for the rezoning of the subject site provided conclusions consistent with the Flora and Fauna report.

In relation to mitigation measures, the following are proposed in the flora and fauna report:-

- Weed management should be undertaken within all cleared areas, gardens, landscaped areas and Asset Protection Zones (where required) following the initial clearing activity to reduce the likelihood of weed species re-colonising these areas. Weed management should then be regularly undertaken within the site following the completion of construction/landscaping works. There may also be opportunities to undertake weed management within the vegetation communities proposed to be retained including the swamp habitats and salt marsh communities;
- Appropriate stormwater management must be designed in a manner that ensures run off entering receiving waters is equal in quantity to that pre development. Appropriate sedimentation controls should also be adopted during construction and clearing activity.
- Any alterations to the existing low level crossing of Banyula Creek would be designed in a manner which provides for fish passage will be designed in accordance with specifications in the *Fish Passage Requirements for Waterway Crossings* (Fairfull and Witheridge, 2003);
- Revegetation of open space areas and the wetland is to be carried out including compensatory planting of *Eucalyptus piperita* as well as Koala feed trees in the open space areas around Banyula

Creek and around buffer areas of the wetland. Appropriate species to plant include *Eucalyptus microcorys* and *Eucalyptus robusta*.

The mitigation measures outlined in the LMP aim to conserve flora and fauna and their habitats within the meaning of the TSC Act as well as conserve and enhance wildlife corridor values and connective importance of the retained areas of the site. The mitigation of direct and indirect impacts on the wetland the enhancement of the residential estate through landscaping treatments and use of species which will compliment remnant vegetation in the locality are also aims of the LMP.

This portion of the site which forms the residual allotment is to be dedicated to the Council as outlined in the Proponent's Statement of Commitments. While DECC considered that a restriction as to user should also be required to be placed on the title of this residual allotment to ensure this portion of the site is protected in perpetuity and therefore in accordance with the requirements of DECC, such a restriction is not considered necessary given the Council will be the owner and manager of this land. Furthermore, this wetland area will be subject to the provisions of a Habitat and Vegetation Management Plan as well as the Landscape Management Plan which will ensure this area retains its important ecological functions in public ownership.

The mitigation measures required by the LMP were outlined in Sections 5.3 and 5.4 of this report and are considered to be consistent with the relevant ecological standards for such works.

## Resolution

The project addresses the flora and fauna issues raised in the DGRs and propose to provide numerous mitigation measures both within the development footprint and the public reserve and wetland areas. Relevant conditions of approval have been recommended to be imposed to reflect these requirements.

## 5.7 Aboriginal Cultural Heritage

Aboriginal Cultural heritage was investigated for the site in the *Aboriginal Sites Investigation of Old Bar Precinct 2A* report prepared by Vienna Maslin and Mick Leon of the Purfleet-Taree Local Aboriginal Land Council Culture and Heritage Section "(the Aboriginal Heritage Study)". This report was prepared for the rezoning.

The report contained Aboriginal community consultation and their recommendations, described traditional Aboriginal material located and carried out consultation with relevant State Government agencies including the National Parks and Wildlife Service (now known as DECC). The report aimed to provide identification of Aboriginal sites and relics within the site and to assess the significance of sites to Aboriginal people and what if any impact to these sites may occur.

This report identified six (6) Aboriginal sites within 2 locations on the site, outlined in Figure 15, which were recorded using the NPWS Aboriginal Heritage Information Management System ("AHIMS"). These artefacts were all termed 'flakes' with the exception of one which was determined to be a remnant 'core'. The 2 locations where the artefacts are both located within the 7(a) zone are on the periphery of the salt-marsh/wetland area. The stone flakes were found on the edge of this rise and were probably result of people sitting and chipping away making implements. A search of the AHIMS found that 13 Aboriginal sites had been recorded within 5km of the site.

The proposed development is well removed from the sites located and therefore the sites are to be retained by the project. A footpath extends along the elevated land above these sites where it is proposed to construct a series of exercise stations around the periphery of the site. These exercise stations can be seen marked with an (E) on the landscape plan in Figure 11. The proponent also proposes to provide interpretative signage and displays along this pathway to provide education to the community of the Aboriginal Cultural significance of the site. A protective buffer is also to be placed around the recorded sites of 5-10 metres and a future Plan of Management for the 2 identified sites shall be implemented as recommended by the Aboriginal Heritage study.

The DECC were initially concerned with several aspects of the Aboriginal Heritage Study including the lack of adequate consultation with the local Aboriginal Community throughout the assessment process, the archaeological assessment being inconsistent with current guidelines and the insufficient justification for

proposed mitigation recommendations. Further concerns were that the sites identified in the vicinity of the site were not investigated or described by the report.

**Figure 15: Location of Aboriginal Heritage sites**  
(Source: Proponent's response to DECC's concerns in letter dated 13 June 2008)



Following additional information from the Proponent to DECC, particularly in regard to consultation with the Aboriginal Community, the DECC stated that while there were still some concerns with the Aboriginal Cultural Study, such concerns were allayed by the fact that the artefacts will be contained within a conservation reserve to be dedicated to the Council and support of the proposal from the local Aboriginal Community.

The DECC raised no objection to the project subject to strict conditions of approval relating to the preparation of an Aboriginal Cultural Heritage Plan in consultation with the Aboriginal Community (consultation has already commenced), standard conditions relating to potential recovery of relics during construction and the requirement to provide an appropriate level of protection to the items in perpetuity within the proposed conservation area. Furthermore, the dedication of the residual allotment to the Council will ensure the Aboriginal Cultural heritage items are protected in perpetuity.

### Resolution

The project addresses the Aboriginal Cultural Heritage issues raised in the DGRs and by the DECC and relevant conditions of approval have been recommended to be imposed to ensure Aboriginal cultural heritage is conserved on the site.

### 5.8 Subdivision Layout and Visual Amenity

The layout of the subdivision was required to be addressed in the DGRs and requires consideration of the site constraints and opportunities. Of particular interest in this instance is the connectivity of the subdivision with the adjoining site which is likely to be rezoned in the near future.

The proposed layout of the subdivision has the following features:-

- An internal road system which provides for a collector road and a series of smaller local roads and access ways which provides access to all proposed allotments. The proposed collector road joins the existing local road system at a single point which has already been constructed and is consistent with the future layout of the area;
- A large area of public reserve and retained wetland area to be dedicated to the Council as well as landscaping throughout the site;
- A series of pathways and cycle ways which connect to adjoining sites and the public open space areas;
- A road system which will allow for a future connection to the adjoining Precinct 2B land to the west of the subject site;
- 98 allotments which range in size from 500 to 1150 square metres with the average lot size being 600 square metres. Over 85% of the lots are orientated in a north-south direction providing optimum solar access for future dwellings;
- The allotments are to be constructed in 8 stages proceeding in a northerly direction from the Banyula Drive frontage;
- Removal of significant vegetation has largely been avoided and there is minimal cut and fill required;
- The proposed subdivision is located close to existing services, will be serviced by adequate infrastructure and will not adversely affect the surrounding road network in relation to traffic generation.

This subdivision layout is considered to be consistent with the *Coastal Design Guidelines of NSW* and the *NSW Coastal Policy*.

The subject site is not visible from the ocean or the Manning River and is considered not to be located in a sensitive visual catchment. Notwithstanding this, it is important that the subdivision be of a consistent design and scale to surrounding existing development including the adjoining residential area of Old Bar to the east and the future subdivision to the west.

The layout of the roads and the location of the open space areas ensure that development is appropriately set out on the site taking into consideration topographical and vegetative factors. The density of the subdivision and the likely form of future housing ensures the proposed subdivision is of a consistent scale and design to existing and future development in the locality. The visual amenity of the locality will be preserved in accordance with *Coastal Design Guidelines of NSW* and Goal 3 (to protect and enhance the aesthetic qualities of the coastal zone) of the *NSW Coastal Policy*.

## Resolution

The project addresses the layout and visual amenity issues raised in the DGRs and relevant conditions of approval have been recommended to be imposed to ensure visual amenity is conserved on the site.

## 5.9 Sustainability and Public Interest

The issue of sustainability and ecological sustainable development (ESD) have been addressed by the proposal and have been discussed in detail in Section 3.6 of this report. In summary, the project satisfies the principles of ESD in the following ways:-

- The layout of lots allows for north-south orientation which provides for good solar access;
- The proposed pathways and footpaths provide connections to surrounding pathways and services thereby reducing car dependence;
- Future housing on the site will be subject to BASIX requirements;
- Water sensitive urban design measures in relation to water cycle management are proposed as well as a third pipe to allow for reuse of wastewater in the vicinity of the site; and
- Climate change impacts on coastal flooding has been considered and found to be satisfactory (Section 5.1 of this report).

In relation to the public interest, it is considered that the project is in the public interest in the following ways:

- The project will provide greater housing choice and supply of land for housing;
- The provision of public open space areas will allow for public recreation opportunities which serve the public interest;
- The protection of important ecological areas is in the public interest given the conservation of biological diversity and open space areas;
- The public pathways and footpaths will provide for public access in the vicinity of the site;
- The project is consistent with the principles of ESD which is in the public interest (*Walker v Minister for Planning* [2007] NSWLEC 741, on appeal *Minister for Planning v Walker* [2008] NSWCA 224).

### **Resolution**

The project addresses ESD and the public interest subject to relevant conditions of approval being imposed.

### **5.10 Section 94 Contributions**

Contributions are required to be made towards providing services and infrastructure in the area. Section 94 Contributions have been recommended to be imposed in the conditions of approval. No concessions were requested from the Proponent in relation to the dedication of land to the Council as this was agreed to during the rezoning of the site.

The section 94 contributions required for the project as provided from the Council are outlined below in Table 5.

Table 5: Section 94 Contributions required to be paid

Section 94 item	Per Lot Contribution	Stage 1 (18 Lots)	Stage 2 (9 Lots)	Stage 3 (19 Lots)	Stage 4 (20 Lots)	Stage 5 (13 Lots)	Stage 6 (6 Lots)	Stage 7 (8 Lots)	Stage 8 (4 Lots)
<b>Old Bar</b>		18	9	19	20	13	6	8	4
Open Space	\$1,609.77	\$28,975.86	\$14,487.93	\$30,585.63	\$32,195.40	\$20,927.01	\$9,658.62	\$12,878.16	\$6,439.08
Roads	\$2,509.90	\$45,178.20	\$22,589.10	\$47,688.10	\$50,198.00	\$32,628.70	\$15,059.40	\$20,079.20	\$10,039.60
MP Community Centre	\$271.36	\$4,884.48	\$2,442.24	\$5,155.84	\$5,427.20	\$3,527.68	\$1,628.16	\$2,170.88	\$1,085.44
Rural Fire Fighting	\$200.49	\$3,608.82	\$1,804.41	\$3,809.31	\$4,009.80	\$2,606.37	\$1,202.94	\$1,603.92	\$801.96
Finance	\$132.08	\$2,377.44	\$1,188.72	\$2,509.52	\$2,641.60	\$1,717.04	\$792.48	\$1,056.64	\$528.32
<b>Greater Taree</b>									
Central Library Service Enhancement	\$378.11	\$6,805.98	\$3,402.99	\$7,184.09	\$7,562.20	\$4,915.43	\$2,268.66	\$3,024.88	\$1,512.44
Library Bookstock	\$109.06	\$1,963.08	\$981.54	\$2,072.14	\$2,181.20	\$1,417.78	\$654.36	\$872.48	\$436.24
Aquatic Centre	\$150.93	\$2,716.74	\$1,358.37	\$2,867.67	\$3,018.60	\$1,962.09	\$905.58	\$1,207.44	\$603.72
Rural Fire Fighting (Centre)	\$333.60	\$6,004.80	\$3,002.40	\$6,338.40	\$6,672.00	\$4,336.80	\$2,001.60	\$2,668.80	\$1,334.40
Surf Lifesaving Facilities	\$167.80	\$3,020.40	\$1,510.20	\$3,188.20	\$3,356.00	\$2,181.40	\$1,006.80	\$1,342.40	\$671.20
Regional Open Space	\$343.70	\$6,186.60	\$3,093.30	\$6,530.30	\$6,874.00	\$4,468.10	\$2,062.20	\$2,749.60	\$1,374.80
S94 Co-ordinator	\$259.70	\$4,674.60	\$2,337.30	\$4,934.30	\$5,194.00	\$3,376.10	\$1,558.20	\$2,077.60	\$1,038.80
S94 Plan Preparation	\$8.54	\$153.72	\$76.86	\$162.26	\$170.80	\$111.02	\$51.24	\$68.32	\$34.16
Finance	\$144.63	\$2,603.34	\$1,301.67	\$2,747.97	\$2,892.60	\$1,880.19	\$867.78	\$1,157.04	\$578.52
	<b>Total for each Stage</b>	<b>\$119,154.06</b>	<b>\$59,577.03</b>	<b>\$125,773.73</b>	<b>\$132,393.40</b>	<b>\$86,055.71</b>	<b>\$39,718.02</b>	<b>\$52,957.36</b>	<b>\$26,478.68</b>
								<b>Overall Total</b>	<b>\$642,107.99</b>

5.11 Other issues

Issue	Potential Impacts	Mitigating Factors
<b>Contamination &amp; Remediation</b>	<ul style="list-style-type: none"> <li>• Potential contamination of soil from past uses.</li> <li>• Potential concerns with exposure of soils during construction of the project.</li> </ul>	<ul style="list-style-type: none"> <li>• The potential contamination status of the site was investigated in the <i>Local Environmental Study</i> prepared by Terra Consulting (Aust) Pty Ltd dated November 2003 ("the LES") for the site.</li> <li>• The LES stated that a Preliminary investigation into previous land uses of the property indicated that there had been no activities on the site which are listed as potentially contaminating activities under SEPP 55.</li> <li>• The majority of the site has been used for cattle grazing previously, however, no cattle dips have been located on the site or in close proximity of the site.</li> <li>• A checklist for potential soil contamination has been lodged and indicates that there is little likelihood of soil contamination existing on the site.</li> <li>• No further investigations were considered necessary.</li> <li>• Appropriate conditions have been reflected in the recommended conditions of approval which require monitoring of soils for contamination during construction.</li> </ul>
<b>Acid Sulphate Soils (ASS)</b>	<ul style="list-style-type: none"> <li>• The site contains areas which are low lying and likely to contain ASS.</li> <li>• The site has areas mapped as Class 1 (the wetland area) and Class 2 (majority of the site). The Old Bar/Wallabi Point Development Strategy stated that no development in areas containing Class 1, 2 and 3.</li> </ul>	<ul style="list-style-type: none"> <li>• The area classified as potentially containing ASS is located outside of any potential development area, being within the boundaries of the SEPP 14 wetland.</li> <li>• Appropriate conditions have been reflected in the recommended conditions of approval which require monitoring of soils for ASS during construction.</li> </ul>
<b>Socio-economic</b>	<ul style="list-style-type: none"> <li>• The project would place minor strain on local services and infrastructure.</li> <li>• The Taree area is likely to experience a population growth rate of approximately 1.2% per annum and that population is ageing.</li> <li>• There is likely to be strong growth in the over 70s age group and a slight decrease in the 25-34 age group.</li> <li>• According to Council</li> </ul>	<ul style="list-style-type: none"> <li>• The project would provide employment and income for local workers.</li> <li>• The project would provide additional housing and provide more housing choice for local residents.</li> <li>• There is unlikely to be any adverse impacts on the social and economic climate of Old Bar arising from the project.</li> <li>• Section 94 contributions (see below) will assist in providing services to cater for additional population.</li> </ul>

	<p>studies, there is a shortfall of approximately 444 residential lots in Old Bar up to the year 2010.</p> <ul style="list-style-type: none"> <li>• The majority of the Greater Taree population are considered to be low income earners.</li> </ul>	
<b>Geotechnical &amp; Soils</b>	<ul style="list-style-type: none"> <li>• The geology of the site must be capable of sustaining the project as proposed.</li> </ul>	<ul style="list-style-type: none"> <li>• The geological setting of the site was investigated in the <i>Local Environmental Study</i> prepared by Terra Consulting (Aust) Pty Ltd dated November 2003 for the site.</li> <li>• The site is located within the Pelican Bay (lower section of site) and Diamond Head (higher portion of the site) variant Soil Landscape Groups.</li> <li>• Diamond head group is suitable for development.</li> <li>• The requirement for geotechnical certification is reflected in the recommended conditions of approval.</li> </ul>
<b>Construction Management &amp; Staging</b>	<ul style="list-style-type: none"> <li>• The project would need to be constructed in a way that minimises impacts on the environment and site disturbances</li> <li>• The project needs to be constructed in a manner that is economically and environmentally efficient.</li> </ul>	<ul style="list-style-type: none"> <li>• The Proponent has proposed a logical staging plan.</li> <li>• The proposed stages progress from the Banyula Drive boundary towards the northern (rear) boundary.</li> <li>• Appropriate conditions have been recommended to be imposed in the conditions of approval including in relation to erosion and sediment control.</li> </ul>
<b>Cumulative impacts</b>	<ul style="list-style-type: none"> <li>• The proposal may contribute to cumulative impacts in the area.</li> </ul>	<ul style="list-style-type: none"> <li>• The project has been assessed in relation to cumulative impacts including traffic generation, services provision and housing choice.</li> <li>• It is considered that there will be minimal adverse impacts as a result of the project given the proposal is consistent with zone objectives, is permissible and will provide adequate services to the site.</li> <li>• Adequate construction management conditions are reflected in the recommended conditions of approval to ensure minimal impact on the environment during construction.</li> </ul>

## 6 CONCLUSION

---

The Department has assessed the EA and considered the submissions in response to the proposal. The key issues raised in submissions related to water cycle management, infrastructure provision, wetland impacts, management of open space and connectivity, traffic and access, flora and fauna, Aboriginal Cultural Heritage, subdivision layout, visual amenity and management and mitigation of construction impacts. The Department has considered these issues and a number of conditions are recommended to ensure the satisfactory addressing of these issues and minimal impacts as a result of the proposal.

The proposed development will allow for additional housing in the area on land zoned for residential development while providing for large areas of open space and the conservation and rehabilitation of a SEPP 14 wetland. Furthermore, the project application has largely demonstrated compliance with the existing environmental planning instruments.

On these grounds, the Department considers the site to be suitable for the proposed development and that the project is in the public interest. Consequently, the Department recommends that the project be approved, subject to the conditions of approval.

## 7 RECOMMENDATION

---

It is recommended that the Director-General of the Department of Planning, under delegation from the Minister for Planning dated 4 March 2009:-

- (A) **Consider** the assessment findings and recommendations of this report;
- (B) **Revoke** the authorisation for the lodgement of a Concept Plan granted by the then Minister on 30 June 2006; and
- (C) **Approve** the carrying out of the project, under Section 75J *Environmental Planning and Assessment Act, 1979* subject to conditions and **sign** the Determination of the Major Project Application (**Tag A**);

Prepared by:

Endorsed by:

Kim Johnston  
**Senior Environmental Planner**  
**Coastal Assessments**

Mark Schofield  
**Team Leader**  
**Coastal Assessments**

Heather Warton  
**Director**  
**Coastal Assessments**

## **APPENDIX A. INSTRUMENT OF APPROVAL**

---

## APPENDIX B. DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Application number
05_0106
<b>Project</b>
A <b>Project Application</b> for a residential subdivision at Banyula Drive, Old Bar, which includes the following: <ul style="list-style-type: none"> <li>• residential subdivision;</li> <li>• internal roads;</li> <li>• infrastructure services including water and sewer reticulation, electricity, telecommunications and stormwater drainage infrastructure;</li> <li>• public walkways; and</li> <li>• restoration of wetlands.</li> </ul>
<b>Location</b>
Lot 7 DP 1069956, Banyula Drive, Old Bar (known as Precinct 2A in the Old Bar Wallabi Point Development Strategy).
<b>Proponent</b>
Richard Bennett – Hill Top Planners Pty Ltd
<b>Date issued</b>
30 January, 2008
<b>Expiry date</b>
2 years from date of issue
<b>General requirements</b>
The Environmental Assessment (EA) for the <b>Project Application</b> must include: <ol style="list-style-type: none"> <li>1. An executive summary;</li> <li>2. An outline of the scope of the project including: <ul style="list-style-type: none"> <li>• any development options;</li> <li>• justification for the project taking into consideration any environmental impacts of the project, the suitability of the site and whether the project is in the public interest;</li> <li>• outline of the staged implementation of the project if applicable;</li> </ul> </li> <li>3. A thorough site analysis including constraints mapping and description of the existing environment;</li> <li>4. Consideration of the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i></li> <li>5. Consideration of any relevant statutory and non-statutory provisions and identification of any non-compliances with such provisions, in particular relevant provisions arising from environmental planning instruments, Regional Strategies (including draft Regional Strategies) and Development Control Plans.</li> <li>6. Consideration of impacts, if any, on matters of national environmental significance under the <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>;</li> <li>7. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any</li> </ol>

- potential impacts of the project;
8. The plans and documents outlined in **Attachment 2**;
  9. A Quantity Surveyor's Certificate of Cost to verify the capital investment value of the project; and
  10. An assessment of the key issues specified below and a table outlining how these key issues have been addressed.
  11. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading;

## Key Issues

The EA must address the following key issues:

### 1. Subdivision Design, Layout and Desired Future Character

- 1.1 Demonstrate the consistency of the proposal with the character of existing development in terms of the locality, street frontage, scale, building envelopes and future built form controls, aesthetics, energy and water efficiency and safety.
- 1.2 Demonstrate the consistency of the proposed subdivision design and layout with the *Coastal Design Guidelines for NSW*, *NSW Coastal Policy 1997* and *SEPP 71 – Coastal Protection*.
- 1.3 Identify the type of subdivision proposed across the site i.e. community, Torrens, strata.
- 1.4 Provide details of any staging that demonstrates the lots will be released in an orderly and coordinated manner.
- 1.5 Outline the long-term management and maintenance of any areas of open space or conservation including ownership and control, management and maintenance funding, public access, revegetation and rehabilitation works and bushfire management.
- 1.6 Provide details of the proposed subdivision layout with consideration given to physical site constraints in the subdivision layout and future ownership and management of the 6(a) and 7(a) zoned land.
- 1.7 Demonstrate that the proposal will not encroach upon or remove any vegetation from Crown land.

### 2. Infrastructure Provision

- 2.1 Address existing capacity and requirements of the development for sewerage, water and electricity in consultation with relevant agencies having regard to Water Sensitive Urban Design (WSUD) principles.
- 2.2 Provide details on relevant upgrading and/or installation of services where required and identify staging, if any, of infrastructure works.

### 3. Traffic and Access

- 3.1 Provide an assessment of traffic impacts including cumulative impact in the Old Bar locality on the Pacific Highway/Old Bar Road Interchange and on Old Bar Road and impact on accessibility to Taree and the Pacific Highway using Old Bar Road.
- 3.2 Investigate the status of the road extension to form a Boulevard link back to Old Bar Road. (If works are to be undertaken on the Crown Road as part of the development, the proponent should make arrangements with Greater Taree City Council to have control of the road transferred to Council).
- 3.3 Consider the provisions of draft DCP No. 57 – Old Bar Precinct 2B in relation to the street hierarchy and street network in the road design for Precinct 2A, as relevant.
- 3.4 Identify needs (if any) to upgrade roads and improvement works to ameliorate any traffic inefficiency and safety impacts associated with the development.
- 3.5 Consider available public transport and additional demands for such transport.

### 4 Public Access and Community Services

- 4.1 Illustrate pedestrian and cyclist linkages in the vicinity of the site including to Precinct 2B, with consideration for draft DCP No. 57 – Old Bar Precinct 2B, and provide additional walkway/cycleway facilities where appropriate.
- 4.2 Consider impacts on existing community facilities such as schools, hospitals, parks etc.

<b>5. Hazard Management and Mitigation</b>	
<i>Contamination</i>	
5.1	Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of SEPP 55 – Remediation of Land.
<i>Acid Sulfate Soils</i>	
5.2	Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures.
<i>Bushfire</i>	
5.3	Address the requirements of Planning for Bush Fire Protection 2006 (RFS).
<i>Flooding</i>	
5.4	Address the requirements of the relevant flooding data, having regard to the NSW Floodplain Management Manual.
5.5	Address coastal hazards and the provisions of the Coastline Management Manual. In particular, where relevant consider impacts associated with wave and wind action, coastal erosion, sea level rise and more frequent and intense storms.
<b>6. Water Cycle Management</b>	
6.1	Assess direct and indirect impacts of the development on the adjoining SEPP 14 wetland areas. This must illustrate that no stormwater runoff is directed to any SEPP 14 or unmapped wetland areas. Address the requirements of the relevant flooding data in relation to minimum floor levels, having regard to the <i>NSW Floodplain Management Manual</i> . Provide an Integrated Water Cycle Management (IWCM) Plan based upon Water Sensitive Urban Design Principles.
6.2	Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.
6.3	Demonstrate the impact and treatment of stormwater discharge including overland flows from the site to the local waterways and potential impacts of stormwater run off to adjoining Crown Reserves.
6.4	Provide details of the location and size of Riparian buffers adjoining water courses and wetlands (including adjoining buffers).
<b>7. Heritage and Archaeology</b>	
7.1	Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance (Aboriginal community consultation should be undertaken in accordance with DEC's <i>Interim Community Consultation Requirements for Applicants</i> ).
7.2	Identify any other items of heritage significance and provide measures for conservation of such items.
<b>8. Flora and Fauna</b>	
8.1	Outline measures for the conservation of flora and fauna and their habitats within the meaning of the <i>Threatened Species Conservation Act 1995</i> and outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land.
8.2	Consider impacts of clearing of native vegetation.
<b>Consultation</b>	
You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment:	
(a)	Agencies or other authorities:

- Greater Taree City Council;
- Department of Natural Resources;
- Department of Environment and Conservation;
- NSW Rural Fire Service;
- NSW Roads and Traffic Authority; and

(b) Public:

- Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.

The consultation process and the issues raised are to be described in the Environmental Assessment.

**Deemed Refusal Period**

**60 days**

## APPENDIX C. ENVIRONMENTAL PLANNING INSTRUMENTS

---

Section 75(2) of the *Environmental Planning and Assessment Act 1979* requires that reference be made to the provisions of any environmental planning instrument that would (but for Part 3A of the Act) substantially govern the carrying out of the project. Consideration of the proposed development in the context of the objectives and provisions of the relevant environmental planning instruments is provided below.

### STATE ENVIRONMENTAL PLANNING POLICIES

#### State Environmental Planning Policy (Major Projects)

The project is a Major Project under *State Environmental Planning Policy (Major Projects) 2005* being subdivision for residential purposes of land that is not in the metropolitan coastal zone into more than 25 lots (Schedule 2, clause 1(1)(j)(i)). The project is consistent with the provisions of this SEPP

#### State Environmental Planning Policy 71 – Coastal Protection

State Environmental Planning Policy 71 - Coastal protection ("SEPP 71") applies to the site as it is located within the coastal zone of NSW. The relevant clauses of SEPP 71 are addressed below:

- a) **Aims of Policy (Clause 2)** - The project is consistent with the aims given the retention and rehabilitation of the SEPP 14 wetland, the provision of pedestrian and cyclist paths throughout the site, the protection of the Aboriginal heritage items and the protection of visual amenity within the locality. There will be no adverse impact on public access to the foreshore and there will be no adverse impacts to the marine environment, rock platforms or the coastal zone in general.
- b) **Matters for Consideration (Clause 8)** - The summary, the matters for consideration include
- Aims of the policy
  - public access
  - suitability of the development given its type, location and design and its relationship with the surrounding area,
  - potential impacts on the amenity of the coastal foreshore including overshadowing and view loss of public places,
  - scenic qualities of the coast,
  - measures to conserve animals and fish, wildlife corridors,
  - measures to reduce the potential for conflict between land-based and water-based coastal activities,
  - protection of Aboriginal cultural heritage;
  - likely impacts on water quality of coastal waterbodies,
  - cumulative impacts of the proposed development on the environment, and
  - energy efficiency of development.

It is considered that the project is consistent with these matters as outlined in Section 5 of the report.

- c) **Public access (Clause 14)** - A consent authority must not consent to an application to carry out development on land to which this Policy applies if, in the opinion of the consent authority, the development will, or is likely to, result in the impeding or diminishing, to any extent, of the physical, land-based right of access of the public to or along the coastal foreshore. The project will not impede or diminish to any extent land-based public access to the coastal foreshore.
- d) **Effluent Disposal (Clause 15)** - The consent authority must not consent to a development application to carry out development on land to which this Policy applies in which effluent is proposed to be disposed of by means of a non-reticulated system if the consent authority is satisfied the proposal will, or is likely to, have a negative effect on the water quality of the sea or any nearby beach, or an estuary, a

coastal lake, a coastal creek or other similar body of water, or a rock platform. The project involves a reticulated sewer system and is therefore consistent with this clause.

- e) **Stormwater (Clause 16)** - The consent authority must not grant consent to a development application to carry out development on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform. The stormwater from the site is proposed to be treated in a WSUD treatment train which satisfies relevant water quality guidelines as outline in Section 5 of this report.

The project is considered to be consistent with the requirements of SEPP 71.

### **State Environmental Planning Policy No. 55 – Remediation of Land**

SEPP 55 deals with the remediation of contaminated land. Investigations indicate that the existing conditions of groundwater and soil contamination on site are within the human health risk based guideline values and therefore no remediation is required to be undertaken at this stage. The project is consistent with this SEPP.

### **State Environmental Planning Policy No. 44 – Koala Habitat Protection**

SEPP 44 aims to manage and conserve koala habitat to prevent declines in current populations. Under clause 9 of the SEPP, the consent authority is not to grant consent unless it is satisfied that any "potential koala habitat" is not "core koala habitat" as defined under the SEPP. The Department is satisfied that the project would not affect any potential or core koala habitat.

### **State Environmental Planning Policy No. 14 – Coastal Wetlands**

SEPP 14 aims to ensure that the coastal wetlands are preserved and protected in the environmental and economic interests of the State. The site contains a wetland listed under SEPP 14. Clause 7 states that a person shall not clear, construct a levee on, drain or fill land that is a SEPP 14 wetland except with Council consent or concurrence for the Director. No works are proposed to the SEPP 14 on the site and therefore the project is consistent with this SEPP. The potential impacts on the SEPP 14 wetland are considered in Section 5.3 of this report.

### **State Environmental Planning Policy No. 11 – Traffic Generating Developments**

State Environmental Planning Policy 11 -Traffic Generating Developments does not apply since the project does not have direct vehicular or pedestrian access to an arterial road or to a road connecting with an arterial road within 90 metres.

## **REGIONAL ENVIRONMENTAL PLANS**

### **Hunter Regional Environmental Plan**

The REP applies to the site and aims to promote the balanced development of the region, the improvement of its urban and rural environments and the orderly and economic development and optimum use of its land and other resources, consistent with conservation of natural and man made features and so as to meet the needs and aspirations of the community. Specifically Part 2 (Division 1) requires that the Housing Objectives of this plan are to provide opportunities for adequate provision of secure, appropriate and affordable housing in a variety of types and tenures for all income groups throughout the region, and to ensure that the design and siting of residential development meets community needs, minimises impact on the natural environment and involves the quality of the region's built environment. The project is considered to provide a range of lot types and is located close to existing services and facilities. The protection of the natural environment and connectivity to adjoining areas are achieved by the project.

It is considered that the EA has adequately assessed the project against the provisions of the REP. The Department is satisfied that the project is consistent with the objectives of the REP.

## LOCAL ENVIRONMENTAL PLANS

### Greater Taree Local Environmental Plan 1995

The *Greater Taree Local Environmental Plan 1995* is applicable to the site and provides development controls for development in the Greater Taree local government area. The site is zoned part 2(a) Residential, part 6 (a) Open Space Recreation and part 7(a) Environmental Protection Habitat under the LEP and is permissible with consent in these zones. The Department is satisfied that the project can be conducted in a manner that is consistent with the relevant environmental and special provisions of the LEP as outlined below.

**a) Clause 17 - Residential zones which apply in this plan** - The objectives of the 2 (a) Residential are:-

- a) *the preservation of the residential amenity,*
- b) *the regulation of the subdivision and use of land for housing, with ancillary development permitted only where the scale, type and traffic generating characteristics of the ancillary development are compatible with the character and amenity of the area,*
- c) *the encouragement of a range of residential development providing for flexibility and variety of housing types and designs, densities and associated land uses, with conservation of visual amenity, and*
- d) *the promotion of development considered by the Council to be a desirable land use within the urban living area, which is compatible with the residential environment.*

The project is considered to be consistent with these objectives as the proposal provides for the preservation of residential amenity given the compatible size and scale of the subdivision to existing development and the provision of a range of housing lots which are well serviced. Subdivision is permissible in the zone with approval.

**b) Clause 22 - Open Space zones which apply in this plan** - The objectives of the 6 (a) Open Space Recreation zone are:-

- a) *the development of open space in a manner which optimises the satisfaction of recreation needs of the community, and*
- b) *the provision of development associated with, ancillary to, supportive of, or compatible with, recreational use.*

The development proposed in the 6(a) zone is consistent with these objectives as the provision of stormwater infrastructure and community facilities will satisfy the recreation needs of the community (and will not detract from the use of this area). The proposed development in the 6(a) zone is permissible with consent as it is consistent with the zone objectives.

**c) Clause 23 - Use of open space** - The Council may consent to the development of land within an open space zone only if the Council has considered the following matters:-

- a) *the need for the proposed development,*
- b) *the impact of the proposed development on the existing or likely future use of the land, and*
- c) *the need to retain the land for its existing or likely future use.*

The proposed development in the 6(a) zone is required for community recreation and drainage and will not adversely affect the use of the land for public recreation purposes.

**d) Clause 24 - Environmental Protection zones which apply in this plan** - The objectives of the 7 (a) Environmental Protection Habitat zone are:-

- a) *the protection and conservation of features which are environmentally sensitive or delicate, or of particular environmental interest, and*
- b) *the regulation of development to avoid inappropriate uses which would destroy or damage a habitat ecosystem, particularly that of wetlands, significant vegetation or wildlife.*

The works proposed within the 7(a) zone are the wetland restoration works which are consistent with the zone objectives and therefore permissible with consent.

- e) **Clause 27 - Development within and adjoining Environmental Protection Habitat zone or Scenic zone** - Land within the 7(a) zone shall not clear, drain, excavate or fill land except with the consent of the Council. Development within the 7(a) land may only be consented to after taking into consideration the following matters:-

- a) the likely effects of the development on the water table and on the flora and fauna found on the land,
- b) the effect on any wetlands of any proposed clearing, draining, excavating or filling,
- c) the habitat value of the land,
- d) whether adequate safeguards and rehabilitation measures are proposed to protect the environment,
- e) the objectives and goals of the "National Conservation Strategy for Australia" referred to in clause 7 of State Environmental Planning Policy No 14—Coastal Wetlands, in so far as they relate to wetlands,
- f) whether consideration has been given to any feasible alternative to the proposed development, and
- g) comments received as a result of any advertising of proposals and advice from relevant public authorities.

The potential impacts on the flora and fauna values of the 7(a) land have been considered in detail in the report and found to be adequately mitigated by the project and recommended conditions of approval.

- f) **Cause 36 - Provision of services to development** - The Council may only grant consent to the development of any land if appropriate water supply, sewerage and drainage facilities are available to that land, or arrangements satisfactory to the Council and to the water supply authority have been made for the provision of that supply and those facilities. This issue is discussed in detail in the report and appropriate conditions of approval have been recommended to be imposed.

- g) **Clause 49 - Bushfire hazard** - The Council may consent to the development of land in an urban zone where it has identified a bushfire hazard only where the following have been provided:-

- a) *a perimeter road or reserve which forms the perimeter of the hazard side of the land intended for the development,*
- b) *a sufficient fire radiation zone managed for hazard reduction and located on the bushland side of the perimeter road,*
- c) *residential lot depths appropriate to the fire hazard for lots adjoining the perimeter road,*
- d) *a definition of that part of the land exposed to the bushfire hazard which may not be developed for urban purposes, and*
- e) *controls which avoid placing inappropriate components of developments in hazardous areas.*

Bushfire is considered in detail in the report and appropriate conditions of approval have been recommended to be imposed.

- h) **Clause 55 - Appearance of development** - The Council may consent to the development of land in conspicuous view of any waterway or arterial road, railway, public reserve or land zoned 6 (a) only if it is satisfied as to the likely appearance of the proposed development when viewed from those locations. It is considered that the project will not result in an adverse visual impact from the 6(a) zone given the scale of the development is consistent with surrounding development and the provision of landscaping within the site will ensure the subdivision is compatible with adjoining natural areas.

## REGIONAL STRATEGIES

### Mid-North Coast Regional Strategy 2009

The Mid-North Coast Regional Strategy 2009 states that by 2031, the Mid North Coast population is expected to grow by 27% — from 333,400 to around 424,400. The purpose of the regional strategy is to ensure that the Mid North Coast can continue to prosper over the next 25 years while ensuring protection for its natural assets. The subject site is noted as within the existing urban footprint. The project is considered to be consistent with this Draft Regional Strategy as the project will provide additional housing in the area and is zoned appropriately for residential development.

### OTHER PLANS AND POLICIES

#### NSW Coastal Policy 1997

Matters	Compliance	Comments
Protecting, rehabilitating and improving the natural environment of the coastal zone.	Yes	The proposed development will rehabilitate the SEPP 14 wetland on the site.
Recognising and accommodating the natural processes of the coastal zone	Yes	Following a thorough assessment, it was considered that the site was not adversely affected by coastal processes, including climate change. This issue is discussed in detail in Section 5 of this report.
Protecting and enhancing the aesthetic qualities of the coastal zone	Yes	The proposal would result in a minor visual impact when viewed from outside the site, however, not the coastal foreshore. This issue is discussed in Section 5 of the report.
Protecting and conserving the cultural heritage of the coastal zone.	Yes	Appropriate studies have been formulated and endorsed by DECC. Appropriate conditions of approval are recommended to be imposed.
Providing for ecologically sustainable development and use of resources.	Yes	The proposal provides for ESD by protecting the existing significant coastal vegetation and ensuring its ongoing viability through the design of the water cycle management system. The recycling of water on the site, orientation of lots, the provision of cycleways and pedestrian paths and reuse of treated effluent for non-potable uses on the site demonstrate the proposal's compliance with ESD principles.
Providing for ecologically sustainable human settlement in the coastal zone.	Yes	The proposal allows for ecologically sustainable settlement through designing the proposal around the site constraints. The site is also in close proximity to existing services ensuring that future residents will have access to these services.
Providing for appropriate public access and use.	Yes	The proposal will not adversely impact on existing public access to the foreshore.
Providing information to enable effective management of the coastal zone.	Yes	Appropriate conservation and development strategies have been formulated and adopted for this development in the form of the strategic plan which rezoned the locality to residential.
Providing for integrated planning & management of coastal zone.	Yes	The proposal includes a detailed Landscape Management Plan which will ensure effective

		management and restoration of the environmentally significant areas on the site.
--	--	--

### Coastal Design Guidelines of NSW

Matters	Compliance	Comments
<b>PART 1 – DETERMINING A HIERARCHY OF SETTLEMENTS</b>		
Coastal towns	Yes	The site reflects the coastal character of Old Bar township, its natural attributes, which enhance the coastal village character of the locality.
Relationship to the environment	Yes	Any potential environmental impacts have been minimised through planning policy, design, commitments and conditions of approval.
Visual sensitivity	Yes	The project is in character with existing coastal attributes of the site and adjoining settlement.
Edges to the water and natural areas	Yes	The proposal provides pedestrian and cyclist linkages within the locality and ensures access to the water (i.e. wetland) is restricted.
Streets	Yes	The street layout responds to the topographical, geotechnical and ecological constraints of the site.
Buildings	N/A	No buildings are proposed in the project.
Heights	N/A	No buildings are proposed in the project.
<b>PART 2 – DESIGN PRINCIPLES FOR COASTAL SETTLEMENTS</b>		
Defining the footprint and boundary	Yes	The site is at the western side of the existing township of Old Bar and has been designed in accordance with strategic planning documents prepared by the Council in relation to Precincts 2A and 2B.
Connecting open spaces	Yes	The proposed development will enhance the existing vegetation corridor with the adjoining sites and will also provide pedestrian and cycle links within the locality and through the open space areas.
Protecting the natural edges	Yes	Extensive conservation strategies are to be implemented within the site and will protect the natural edges of the SEPP 14 wetland and creek systems.
Reinforcing the street pattern	Yes	The proposed development has a unique road pattern due to the topographical, geotechnical and ecological constraints. Pedestrian and cyclist linkages are provided throughout the site. The street pattern is consistent with the DCP for the adjoining Precinct 2B lands.
Appropriate buildings for a coastal context	N/A	No buildings are proposed in the project.

### DEVELOPMENT CONTROL PLANS

#### Greater Taree City Council Development Control Plan 41 – Subdivision

The *Greater Taree City Council Development Control Plan 41 – Subdivision* (“DCP 41”) applies to the project. The principal aims of this DCP are to protect and enhance the environment of the City, ensure that development is carried out to a consistent standard throughout the City and to protect the amenity of existing development by ensuring a high standard of design and construction in new subdivisions.

The applicable controls are outlined below and it is considered that the project is generally consistent with these controls.

Primary Matters	Compliance	Comments
<p><b>1.1 Aims and Objectives</b></p> <p>The principal aims of this DCP are to:</p> <ul style="list-style-type: none"> <li>• protect and enhance the environment of the City</li> <li>• ensure that development is carried out to a consistent standard throughout the City</li> <li>• protect the amenity of existing development by ensuring a high standard of design and construction in new subdivisions</li> <li>• explain and document Council's requirements, to encourage an understanding of its policies for development, and how Development Applications may be assessed.</li> </ul>	<p>YES</p>	<p>The project provides a high level of amenity for future residents and provides increased housing in the area.</p>
<p><b>Residential subdivision</b></p> <p>The aims of the residential subdivision development controls are to:</p> <ul style="list-style-type: none"> <li>• facilitate greater diversity in housing choice;</li> <li>• strike a balance between cost effectiveness and recurrent costs to Council and the community;</li> <li>• provide an appropriate level of amenity for new and existing residential areas;</li> <li>• ensure appropriate levels of service are achieved for utilities and the road network;</li> <li>• optimise use of existing infrastructure;</li> <li>• ensure environmental constraints and impacts, such as flooding, drainage, vegetation, erosion etc are adequately considered;</li> <li>• encourage innovative design; and</li> <li>• encourage energy efficiency.</li> </ul>	<p>YES</p>	<p>Subdivision only is proposed at this time. Amenity will be further assessed when applications are submitted for dwellings. The new allotments can be adequately serviced with reticulated water and sewerage as well as roads. Environmental constraints have been addressed and appropriate conditions have been applied to ensure there are no greater detrimental impacts on the Manning River and environs.</p>
<p><b>2 General Requirements for Urban Subdivision</b></p>		
<p><b>2.2 Design principles</b></p> <p>Consideration of the following matters:-:</p> <ul style="list-style-type: none"> <li>• Slope and orientation of land</li> <li>• Hazards such as soil stability, flooding, erosion and bushfires</li> <li>• opportunities for solar and daylight access to future development</li> <li>• design of roads, access ways and individual site access</li> <li>• retention of special qualities or features such as trees and views</li> <li>• the scenic quality of the landscape, including protection of dominant ridge lines and hilltops, or other visually prominent locations</li> <li>• protection of character of existing waterways</li> <li>• availability of utilities</li> <li>• provision of adequate site drainage</li> <li>• provision of public open space</li> <li>• possible need to retain existing subdivision character</li> <li>• heritage and archaeological conservation</li> <li>• adequacy of each site considering the proposed use and</li> <li>• relevant development standards such as set backs, car parking, landscaping etc</li> <li>• the relationship of the subdivision layout to adjacent land suitable for subdivision</li> <li>• enhancement of existing or future subdivision and village character</li> </ul>	<p>YES</p>	<p>These factors have been considered in the subdivision layout as outlined in the EA. Further detailed assessment of the amenity issues will take place when applications for dwellings are submitted (refer detailed discussion in the Report).</p>

<b>2.3 Site Hazards</b>		
Council may require the submission of specialist reports prepared by suitably qualified persons where it considers there may be a risk to future development for any reason.	YES	Reports have been submitted and conditions of consent have been applied to minimise any risk
<b>Flooding and inundation</b> - The extent of development and minimum floor levels are to be in accordance with the recommendations of Council's Interim Flood Management Policy and Development Control Plan 1995. Subdivision layouts shall be based on a strategy for surface water drainage which minimises the incidence of nuisance flooding.	YES	Drainage and stormwater management has been addressed as part of the EA and appropriate conditions have been applied to ensure the minimisation of adverse impact from flooding.
<b>Unstable ground conditions</b> - In areas suspected of being subject to subsidence, landslip or any other potentially hazardous ground conditions, Council may require the completion of a geotechnical assessment prior to considering an application to subdivide.	YES	The site is not affected by such hazards. Appropriate geotechnical conditions have been recommended to be imposed in the conditions of approval.
<b>Coastal Hazards</b> - Subdivision design shall take into account the likelihood of short and long term coastal recession, and dune transmigration as required by Council's DCP 1995.	YES	The subdivision is not located directly on the coast however conditions have been applied to ensure the minimisation of impact associated with water runoff.
<b>Erosion and sediment control</b> - Appropriate measures are required to avoid soil erosion and sedimentation in accordance with "Managing Urban Stormwater Soils and Construction" issued by the Department of Housing. In this regard layouts which minimise the need for cut and fill are preferred.	YES	Conditions of approval have been recommended to be imposed to control erosion and sediment.
<b>Bushfire</b> - In areas subject to bushfire risk subdivision will need a Bushfire Safety Authority to be issued as outlined in Section 100B of the Rural Fires Act 1987.	YES	The requirements of the RFS have been incorporated into the recommended conditions of approval.
<b>Site Contamination</b> - In areas suspected to contain contaminated soil Council may require the completion of a hazard assessment prior to considering an application to subdivide for any purpose.	YES	The site is not considered to be contaminated.
<b>Air Safety</b> - Development within the vicinity of Taree Airport shall take into account the potential impact of the height limitations and aircraft noise on development, and consider the potential of development to increase bird strike as noted in DCP 1995.	N/A	The site is not located within the vicinity of the airport.
<b>2.4 Road design and Construction</b>		
<b>2.4.2 Controls - road network</b> Where subdivision involves the construction of new roads, the road network to be established shall be designed in such a manner that will enable each lot to be developed and accessed in a practical and feasible manner. Unless specified elsewhere in this DCP, the configuration of road shall accord with Council's <i>Ausspec I Design Specification</i> and other approved standards referenced therein including <i>Guide to Traffic Engineering Practice published by NAASRA and Policies, Guidelines and Procedures for Traffic Generating Developments</i> published by the Roads and Traffic Authority of NSW	YES	Roads are to be constructed within the subdivision and Council has provided conditions of consent consistent with its requirements for roads. While there is some disagreement between the Proponent and the Council on road dimensions, it is considered appropriate that the Council's requirements are highlighted in the conditions of approval.
<b>2.4.3 Controls - road geometry</b> <b>Intersections</b> - The minimum distance from an access place or road to a collector road shall be 40m. If the junction is staggered the minimum spacing may be 20m. (SEE DIAGRAMS). Intersections shall be either T-junctions or roundabouts. <b>Vehicle turning areas</b> - Vehicle turning areas shall accommodate the following vehicles in appropriate areas: • "design large rigid truck" with minimum turning circle of 25m; and • an "85% design car" with design turning circle of 15m whichever is appropriate to the use of the road <b>Cul-de-sac streets</b> - Head of cul-de-sac streets should have a minimum turning radius of 8.5m. Where the radius is not provided provision should be made to allow a 3 point turn for a large rigid truck. A configuration such as a "T" or "Y" discourages parking in manoeuvring space and is acceptable. Where driveway entrances are to be used for turning movements, the required area shall withstand the relevant load.	YES	See above

<p><b>2.4.4 Controls - road construction</b> Unless specified elsewhere roads shall be of flexible, two (2) coat flush seal, asphaltic concrete, rigid concrete or interlocking block pavement in accordance with Council's AUSSPEC 1 Design Specification. Concrete roll top kerb and gutter or barrier kerb and gutter shall be provided to Council's approved standards. A flush edge strip and swale profile may be considered in certain instances such as absorptive site conditions. The applicant shall be responsible for connecting new to existing road construction. Where a subdivision adjoins an existing road of a standard less than Council's current standard, full width or half-width plus 3m road pavement construction, kerbing, footpath, and ancillary drainage shall be provided along the full length of the frontage to approved standards.</p>	<p>YES</p>	<p>All roads are to be constructed to these requirements and appropriate conditions of approval have been recommended to be imposed reflecting such compliance.</p>
<p><b>2.4.5 Road dedication</b> Council generally requires the dedication of all roads and pathways constructed to public road standards.</p>	<p>YES</p>	<p>All roads are to be dedicated to the Council.</p>
<p><b>2.4.6 Street names</b> Street name signs shall be erected at the junction of all roads in the subdivision in accordance with Council's guidelines. Proposed street names shall be submitted for approval.</p>	<p>YES</p>	<p>Appropriate conditions of approval have been recommended to reflect compliance with these requirements.</p>
<p><b>2.5 Landscaping and site design</b></p>		
<p><b>2.5.3 Filling and Levelling</b> Siteworks are to be planned to allow topsoil to be stripped, stockpiled and reused on the site. No soil is to be removed from the site without consent. Filling and levelling shall not adversely affect adjoining land and shall be carried out to Council's satisfaction, as indicated on approved engineering plans. The quality laying and compaction of fill will be required to meet Council's engineering standards. Geotechnical certification may be required to indicate compliance with Council's engineering standards and Australian Standard AS 2870 (Residential Slabs and Footings). Levels shall generally be adjusted so that lots drain to the street and/or the stormwater drainage system. Where required, a system of inter-allotment drainage shall be installed to prevent or ponding of water on adjoining land. Filling should be planned to minimise damage or disturbance to existing vegetation. Siteworks shall be designed and constructed to prevent ponding of stormwater, or intensification of run off on to adjacent land.</p>	<p>YES</p>	<p>Landscaping for the individual lot development will be addressed when development applications are submitted for dwelling construction. A Habitat and Vegetation Management Plan is required to ensure that the recommendations of the Flora and Fauna assessment report adequately address the required vegetation for the wetland. Appropriate conditions of approval have been recommended to reflect compliance with these requirements. Conditions of approval have been included to address erosion and sediment control. Filling of the land to mitigate flooding impacts will not adversely affect adjoining and nearby properties as the site is lowering the landscape to surrounding sites and there will be additional flood storage in the proposed constructed wetlands on the site allowing for floodwater to be appropriately managed in the locality.</p>
<p><b>2.6 Services</b></p>		

<p><b>2.6.2 Controls</b>                  Services shall be located within streets, in accordance with Council's standard service allocation. Where available, satisfactory arrangements shall be made with the appropriate authority for the provision of utility services to each lot in the subdivision including dual occupancy and integrated housing subdivision. The design and construction of utility services shall conform to the specific standards of the relevant servicing authorities including:</p> <ul style="list-style-type: none"> <li>• Water supply: MidCoast Water</li> <li>• Sewerage: MidCoast Water</li> <li>• Electricity: Country Energy</li> <li>• Telephone: Telstra</li> </ul> <p>The applicant shall confirm in writing that satisfactory arrangements have been made with relevant utilities authorities prior to the release of linen plans.</p>	<p>YES</p>	<p>Public utilities are available to the subject site. Conditions of approval require the provision of appropriate services.</p> <p>Mid Coast Water was also consulted as part of the assessment of this application and subsequently provided appropriate conditions which have been incorporated into the approval.</p> <p>Adequate services have been provided and appropriate conditions of approval have been recommended to reflect compliance with these requirements.</p>
<p><b>2.7 Drainage</b></p>		

<p><b>2.7.2 Controls</b>  <b>Drainage system design</b> - The drainage system shall be designed in accordance with Council's AUSSPEC 1 Design Specification.                  The major system must be able to accommodate the ARI=1:100 year and meet the safety criteria of AR &amp; R 1987. If capacity is limited in some way the underground (minor) system must be capable of safely conveying the balance. The minor system shall have a minimum capacity of 1:5 year ARI.  <b>On site detention</b> - Applicants may be required to provide on site detention to maintain flows no greater than the undeveloped rate of flow, both within and downstream from the developed area. Council will contribute proportionately for any increase in run-off from other sources.  <b>Stormwater Drainage Contributions Plan - Applicants</b> are required to comply with Council's Stormwater Drainage Contributions Plan. In certain circumstances this will require compliance with Council's on site detention policy to control the increase in run-off, both within and downstream from the development area. Lot drainage shall discharge to the roadway gutter wherever possible. Interallotment drainage may be required.  <b>Water quality, erosion and sedimentation</b> - Where subdivisions drain either directly or indirectly into natural waterways, careful consideration of the impact of the development on erosion, pollution and sediment loading will be required as noted in section 2.5. Stormwater systems will be required to meet the requirements outlined in "Pollution Control for Urban Stormwater" issued by the Environment Protection Authority.  <b>Easements</b> -Easements to drain water, shall be created over drainage channels, pipelines and associated works located within the proposed allotments. Drainage reserves may be required over natural and artificial watercourses.  <b>Flood prone land</b> - Consideration will be given to the likely effects of flooding in determining any application. Land will generally be required to be filled to 500mm above the level of the one percent flood. Any development shall conform to Councils Interim Flood Management Policy and particular flood management plans where relevant. Council may apply conditions to minimise potential flooding problems, or refuse an application.  <b>Work as executed drawings</b> - Works as executed drawings are to be supplied upon completion of works.  <b>Erosion and Sediment Control</b> - Erosion control and sediment control principles shall be implemented in accordance with details to be provided at the Engineering design stage in accordance with the principles outlined in the publication "Managing Urban Stormwater, Soils and Construction " issued by the Department of Conservation and Land Management.</p>	<p>YES</p>	<p>A Stormwater Concept plan was submitted with the EA. Conditions of approval have been included to ensure the recommendations of this plan are adhered to and also to enhance these requirements and ensure minimum impact from stormwater and runoff pollutants.</p> <p>Appropriate conditions of approval have been recommended to reflect compliance with these requirements.</p>
<p><b>2.8 Existing development and Heritage</b></p>		
<p><b>2.8.1 Objectives</b></p> <ul style="list-style-type: none"> <li>• To ensure future development is related to existing development in a way which minimises any potential adverse impact on the existing development.</li> <li>• To ensure heritage conservation objectives are met for both European and Aboriginal heritage.</li> </ul>	<p>N/A</p>	<p>The majority of the site has previously been cleared with the exception of small pockets of vegetation.</p>

<p><b>2.8.2 Controls</b> Subdivision design is to take into account the location of adjoining development and surrounding subdivision pattern, especially adjoining residential development, in the design of roads, open space and in the location of lots. Where there is an established street setback pattern or streetscape, this is to be followed. Where subdivision affects heritage items or heritage conservation areas included within any current Local or Regional Environmental Plan, Council may require the submission of a conservation assessment prior to consideration of the application. The impact of any subdivision on the curtilage or immediate context of a heritage item or conservation area must be evaluated in this assessment.</p> <ul style="list-style-type: none"> <li>• As required under the <i>Heritage Act 1977</i>, the Heritage Council of NSW must be notified if any relic relating to settlement prior to January 1, 1900 is discovered. The relic must not be interfered with.</li> <li>• As required under the <i>National Parks and Wildlife Act 1974</i>, the National Parks and Wildlife Service must be notified of any relic relating to Aboriginal settlement.</li> </ul>	<p>YES</p>	<p>There are no known items of non-Aboriginal Cultural Heritage on the site.</p> <p>Appropriate conditions of approval have been recommended to reflect compliance with the requirements for Aboriginal Cultural Heritage.</p>
<p><b>2.9 Environmental Protection</b></p>		
<p><b>2.9.1 Objectives</b> To protect and minimise the risk of degradation of unique or sensitive environments such as wetlands, littoral rainforests, estuarine areas, and coastal areas.</p>	<p>YES</p>	<p>The site is not directly on the coast although it includes an area of SEPP 14 wetland. Potential impacts on the wetland and other coastal features have been considered in the report and appropriate conditions of approval have been recommended to ensure protection is provided in perpetuity (dedication to the Council).</p>
<p><b>2.9.2 Controls</b> Requirements for development affecting the following are subject to the requirements of Councils DCP 1995 and relevant State Environmental Planning Policies:</p> <ul style="list-style-type: none"> <li>• Wetland areas</li> <li>• Littoral rain forest</li> <li>• Fisheries</li> </ul> <p>Consultation with Council is advisable to determine whether subdivision will constitute 'designated development' and whether an Environmental Impact Statement is required. Council may require the submission of specialist reports prepared by suitably qualified persons where it considers there may be risk to the environment. Referral may be necessary to authorities having an interest or statutory control over these areas.</p> <p>In cases where flora and fauna protection is of importance a Species Impact Statement may be necessary and subdivision design may require the adaptation of specialised designs standards and user restrictions. Note the requirements under <b>landscaping and site design</b> and <b>drainage</b> sections with respect to erosion, sediment control and water quality. Council may reject an application requiring on site disposal of sewage effluent where it considers there may be an adverse impact on ground water quality or adjacent waterways</p>	<p>Yes</p>	<p>See above.</p>
<p><b>3. Controls for Residential Subdivision</b></p>		
<p><b>3.1 Description</b></p>		
<p>This section applies in all areas which are zoned Residential or Village. Development should also be in accordance with the controls contained in Section 2 of this document.</p>	<p>YES</p>	<p>Development complies with the relevant controls as outlined above.</p>
<p><b>3.2 Road layout, lot orientation</b></p>		

<ul style="list-style-type: none"> <li>• Staggering of lot and extensive use of landscaping are encouraged to reduce adverse wind impacts and achieve maximum exposure to cooling breezes in summer, and create streetscape variety and interest.</li> <li>• Lot orientation shall take into account the various types of dwellings which may be constructed on them. Ensure that potential indoor living and related private open space areas of future dwellings can be oriented to the north. Consider the possible overshadowing impact of and on existing or future adjoining buildings.</li> <li>• Consideration of road orientation is an important factor in influencing lot orientation to achieve an energy efficient subdivision.</li> <li>• Roads running close to east-west provide for good orientation of lots for solar access to dwellings and private open space, while maintaining a narrow lot frontage. This will contribute to minimising the street length and reduce lengths of utility and service related infrastructure.</li> <li>• Roads running north-south, lots may need to be widened to provide for solar access and prevent overshadowing of dwellings and private open space. Where land slopes are generally greater than 5%, road and lot design should provide for dwellings to be generally parallel with the contours to minimise earthworks.</li> <li>• Special care should also be taken in the configuration of roads and lots to:             <ul style="list-style-type: none"> <li>• minimise boundary retaining walls, particularly associated with building to boundary</li> <li>• minimise potential overlooking</li> <li>• maintain solar access, where slopes face south. A greater distance between dwellings will generally be required to achieve the same solar access as on level sites or north facing</li> </ul> </li> </ul>	<p>YES</p>	<p>The project has considered these matters in the design of the subdivision in the following ways:-</p> <ul style="list-style-type: none"> <li>• Roads run east-west;</li> <li>• Lots face north-south;</li> <li>• Lots are offset slightly ;</li> <li>• Retaining walls should be minimal; and</li> <li>• No back yards adjoining public open space</li> </ul> <p>Appropriate conditions have been imposed.</p> <p>Future applications for dwellings will need to consider these factors in their design and consideration.</p>
<p><b>3.3 Lot Dimensions</b></p>		
<p><b>Site frontage</b> - Site frontage shall be sufficient to permit vehicular and pedestrian access to the site. <b>Lot proportions</b> - Each lot should have a depth to frontage ratio sufficient to avoid the possibility of 'gunbarrel' development and permit development to respond to particular site circumstances such as orientation, topography etc. <b>Residential lots greater than 450m<sup>2</sup></b> - Lots with an area greater than 450m<sup>2</sup> shall be capable of containing a rectangle suitable for building purposes measuring 10m x 12m or 8m x 15m behind the building line.</p>	<p>YES</p>	<p>Site frontage is adequate; Lot dimensions are adequate for a driveway and dwelling without a 'gun barrel effect'; All lots can accommodate 10m x 12m building envelope; All lots &gt;450m<sup>2</sup>.</p>
<p><b>3.4 Road network</b></p>		
<p>The road network shall conform to a strategic plan for the area showing an existing and proposed major road network above the level of collector which satisfies projected district and regional travel. The road network shall provide for access to bus routes within acceptable walking distance from all dwellings. The road network will provide opportunities for road connections to adjoining land, suitable for subdivision, in accordance with an overall subdivision concept or as agreed by Council.</p>	<p>YES</p>	<p>The proposed road network is consistent with the future proposed road layout for Precinct 2B and provides an adequate connection to the existing road network. Appropriate conditions of approval have been imposed to ensure Council's road dimensions are provided on the site.</p>
<p><b>3.5 Road Design and Construction</b></p>		

<p><b>Design speeds</b> - A combination of measures may be required to limit design speeds by:</p> <ul style="list-style-type: none"> <li>• limiting street length</li> <li>• introducing bends</li> <li>• introducing slow points, bends and other traffic management measures such as constriction of carriageway width, speed humps etc. These may not be appropriate in all situations. Designs shall conform to Council's guidelines. Speed profiles are required for each road.</li> </ul> <p><b>Road reserves</b> - Carriageway, verge and road reserve widths shall be provided as shown in table 3.5. Lesser standards may be considered as part of integrated housing projects where adequacy can be demonstrated. Verge widths may be reduced to a minimum of 3.5 metres where it can be demonstrated that street landscaping can be integrated with underground services, where site levels will not create subsequent conflicts between access driveway levels and underground services. A detailed landscape plan will be required to demonstrate adequacy. Rear fences of a subdivision fronting collector roads are discouraged. Where there is no alternative greater verge widths may be required to provide for landscaping against fences. Shareways will be considered where a safe residential environment can be demonstrated and traffic short cuts are not created.</p> <p><b>Table 3.5 - Road Reserves</b></p> <table border="1"> <thead> <tr> <th>Road Type</th> <th>Carriageway</th> <th>Verge</th> <th>Road Reserve</th> <th>Minimum of Side Road</th> <th>Design Speed</th> </tr> </thead> <tbody> <tr> <td>Streetway</td> <td>3.5m-5m</td> <td>Variable</td> <td>6.0m-10m</td> <td>9'</td> <td>10km/hr</td> </tr> <tr> <td>Arterial Road</td> <td>2.0m-3.0m</td> <td>4m</td> <td>10.0m-15.0m</td> <td>9'</td> <td>20km/hr</td> </tr> <tr> <td>Local Road</td> <td>4m</td> <td>4m</td> <td>15m</td> <td>9'</td> <td>40km/hr</td> </tr> <tr> <td>Collector Road</td> <td>4-1.5m</td> <td>4m-5m</td> <td>15m</td> <td>9'</td> <td>50km/hr</td> </tr> </tbody> </table> <p><small>* 1.5m to be with side of carriageway, allowing for accommodation of parking and landscaping and streetlights, overheads, etc. Carriageway width may vary to be reduced in certain situations.</small></p> <p><b>Pedestrian/cyclist facilities</b> - Shareways shall be paved with material suitable for vehicular traffic, pedestrian and recreational use such as cycling and skate boarding. A road serving more than 50 lots shall be provided with a minimum of one 1.2m wide footpath. This shall be provided by way of a bond lodged with Council, the footpath being constructed only when most of the dwellings within any subdivision are complete. Where an adopted strategy exists, pedestrian and cyclist paths shall be provided in accordance with that plan.</p>	Road Type	Carriageway	Verge	Road Reserve	Minimum of Side Road	Design Speed	Streetway	3.5m-5m	Variable	6.0m-10m	9'	10km/hr	Arterial Road	2.0m-3.0m	4m	10.0m-15.0m	9'	20km/hr	Local Road	4m	4m	15m	9'	40km/hr	Collector Road	4-1.5m	4m-5m	15m	9'	50km/hr	<p>YES</p>	<p>The roads have generally been designed in accordance with these controls; however, there were some roads which required changes to ensure compliance with Council's policies.</p> <p>The design speeds for Road No 1 is adequate as there are sufficient changes in alignment and bends to ensure this occurs.</p> <p>Pedestrian and cyclist facilities have been provided.</p> <p>Appropriate conditions of approval have been recommended to reflect compliance with these requirements.</p>
Road Type	Carriageway	Verge	Road Reserve	Minimum of Side Road	Design Speed																											
Streetway	3.5m-5m	Variable	6.0m-10m	9'	10km/hr																											
Arterial Road	2.0m-3.0m	4m	10.0m-15.0m	9'	20km/hr																											
Local Road	4m	4m	15m	9'	40km/hr																											
Collector Road	4-1.5m	4m-5m	15m	9'	50km/hr																											
<p><b>3.6 Public open space</b></p> <p>Council will require the dedication of land, or payment of contributions for all residential subdivisions as noted in Council's Open Space Contributions Plan. Applicants should consult with Council officers at the design stage regarding the location, size and shape of any reserve to be dedicated.</p>	<p>YES</p>	<p>Appropriate conditions of approval have been recommended to reflect compliance with these requirements. The residual allotment is to be dedicated to the Council for conservation and open space purposes.</p>																														

## APPENDIX D. SUMMARY OF PUBLIC SUBMISSIONS

### Banyula Drive, Old Bar - MP 05\_0106 Summary of Public Submissions received for this application

No	Date Received	Nature	Comment	Issue Summary	Response
1	14/03/08	Object	<ul style="list-style-type: none"> <li>Increased traffic will make it more difficult for elderly people to cross Medowie Road. Suggestion to connect Old Bar Road to Banyula Drive.</li> </ul>	<ul style="list-style-type: none"> <li>Traffic generation</li> <li>Pedestrian safety</li> </ul>	<ul style="list-style-type: none"> <li>Traffic generation has been examined and found to be consistent with current local road infrastructure in relation to capacity.</li> <li>There are pedestrian refuge points located along Medowie Road which allows for safe pedestrian crossing points.</li> <li>Footpaths are located in the vicinity of the site to allow for pedestrian safety and will be continued under the project.</li> </ul>
2	14/03/08	Object	<ul style="list-style-type: none"> <li>Increased traffic will make it more difficult for elderly people to cross Medowie Road</li> <li>Old Bar Road connection to Banyula Drive to be provided prior to development.</li> </ul>	<ul style="list-style-type: none"> <li>Traffic generation</li> <li>Pedestrian safety</li> </ul>	As above
3	14/03/08	Support	<ul style="list-style-type: none"> <li>Open space and ease of access to open space is a good attribute</li> <li>Positive environmental outcomes with the retention of the wetlands.</li> <li>Good solar access for lots.</li> </ul>	Nil	n/a
4	11/03/08	Object	<ul style="list-style-type: none"> <li>Ring road is not required to act as and APZ or buffer, the ring road should be developed into housing allotments;</li> <li>A fenced back yard onto the, open space areas, instead of the ring road, would be a better outcome in terms of wildlife protection and encouraging more wildlife to the area;</li> <li>The site is NOT bushfire prone</li> <li>The construction of the infrastructure for this development of Precinct 2A should also incorporate the construction of infrastructure of adjacent Precinct 2B in order to reduce neighbourhood disturbance;</li> </ul>	<ul style="list-style-type: none"> <li>Road layout</li> <li>Bushfire</li> <li>Open space</li> <li>Precinct 2B</li> </ul>	<ul style="list-style-type: none"> <li>The road layout is consistent with Council policies, in particular DCP 57 - Old Bar Precinct 2B which applies to the adjoining site, the Old Bar/Wallabi Point Development Strategy and Master plan for Precinct 2B.</li> <li>The ring road provides greater public access to public open space areas and provides a greater level of amenity by avoiding "back fences" along public reserves. The ring road will also assist in "casual surveillance" of the public open space areas;</li> <li>The subject site and the adjoining site (Precinct 2B) are considered to be bushfire prone;</li> <li>The environmental protection areas are buffered from the</li> </ul>

			<ul style="list-style-type: none"> <li>Precinct 2B should be rezoned and developed first as the 46 landowners are low income earners and pensioners.</li> </ul>		<p>proposed road system by the 6(a) open space area;</p> <ul style="list-style-type: none"> <li>This assessment does not apply to Precinct 2B.</li> </ul>
5	12/03/08	Support	<ul style="list-style-type: none"> <li>Open scenic walking trails</li> <li>Rejuvenate wetland and provide weed control;</li> <li>protection of habitat;</li> <li>good balance between development and environmental protection</li> </ul>	Nil	n/a
6	17/03/08	Support	<ul style="list-style-type: none"> <li>Good design, and layout</li> </ul>	Nil	n/a
7	6/03/08	Support	<ul style="list-style-type: none"> <li>Good design, good public access and site will be well landscaped</li> </ul>	Nil	n/a
8	5/03/08	Support	<ul style="list-style-type: none"> <li>Sound environmental design and protection of sensitive lands including wetlands;</li> <li>open space and walking trails good benefit to the community</li> </ul>	Nil	n/a
9	28/02/08	Support	<ul style="list-style-type: none"> <li>Environmentally Sensitive Design and generous amount of open space and walking trails</li> <li>Good subdivision layout allows for development and environmental protection</li> </ul>	Nil	n/a
10	3/03/08	Support	<ul style="list-style-type: none"> <li>Close to Amenities, Good environmental outcomes, good subdivision layout</li> </ul>	Nil	n/a
11	28/02/08	Support	<ul style="list-style-type: none"> <li>Good subdivision layout allows for development and environmental protection, and maximises solar access for future dwellings;</li> <li>Encourages public use through good design and provision of walking trails.</li> </ul>	Nil	n/a
12	19/03/08	Support	<ul style="list-style-type: none"> <li>Allows for the expansion of Old Bar</li> <li>Increases market choice on residential allotments available in the area</li> <li>Walking distance to town</li> </ul>	Nil	n/a

13	25/03/08	Object	<ul style="list-style-type: none"> <li>• A proposed walkway on 39 and 41 Gannet Crescent is proposed over these existing established residential properties. The easement over these properties relates to water. Is it lawful to have a walkway over these easements?</li> <li>• There is an existing access point 100 metres away from 39 and 41 Gannet Cres.</li> <li>• The proposed walkway would pass through established residences and gardens</li> <li>• An alternative walkway could be constructed and the western end of Corkwood Street.</li> <li>• Is owners consent required to construct the walkway in the proposed location over 39 and 41 Gannet Cres?</li> </ul>	<ul style="list-style-type: none"> <li>• Walkway</li> </ul>	<ul style="list-style-type: none"> <li>• The strip of land between No 39 &amp; 41 Garnet Crescent is part of the subject site and has been retained to form an extension to the pedestrian network.</li> <li>• The proposed path will link the subject site with other area of public open space in the vicinity.</li> </ul>
14	8/04/08	Object	<ul style="list-style-type: none"> <li>• 40 metre riparian buffer zone has not been provided to Banyula Creek</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian buffer zone</li> </ul>	<ul style="list-style-type: none"> <li>• The <i>Rivers and Foreshores Improvement Act 1948</i> was repealed in February 2008 and accordingly does not apply to the proposal (Part 3A does not require such approvals).</li> <li>• The proposal provides adequate setback to the creek and other appropriate measures to ensure water quality is maintained in Banyula Creek.</li> </ul>

## **APPENDIX E. RESPONSE TO SUBMISSIONS**

---

## **APPENDIX F. ENVIRONMENTAL ASSESSMENT**

---